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ESPOL
1958
POLITECNICA DEL LITORAL
BIBLIOTECA "GONZALO ZEVALLOS"

Escuela Superior Politécnica del Litoral

Facultad de Ingeniería en Mecánica y Ciencias de la Producción

Administración De Inventarios En Una Empresa De Productos Plasticos

TESIS DE GRADO

Previa a la Obtención del Título de:

INGENIERA INDUSTRIAL

Presentada Por:

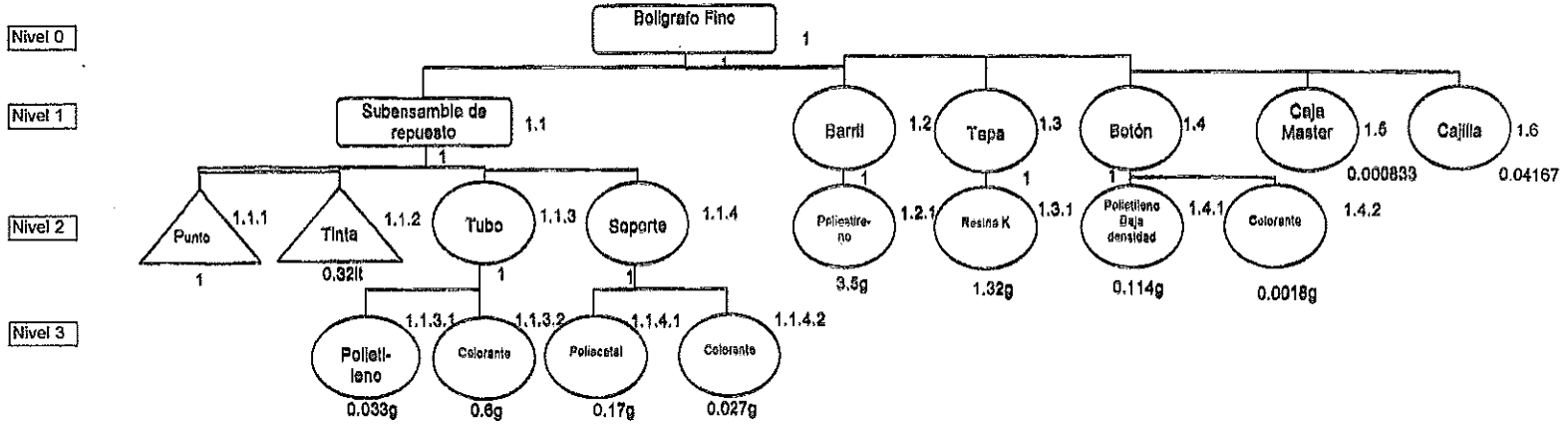
Jessica Jacqueline Silva Brito

Guayaquil - Ecuador

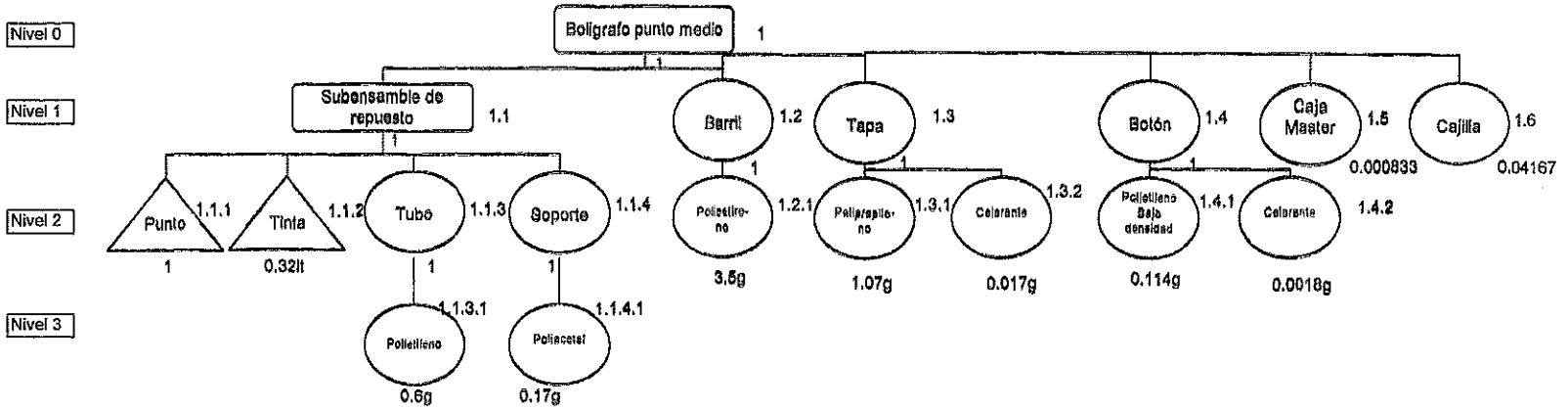
Año - 2004

ANEXOS

APENDICE 2
LISTA DE MATERIALES PARA BOLIGRAFO PUNTO FINO



APENDICE 1
LISTA DE MATERIALES PARA BOLIGRAFO PUNTO MEDIO



APENDICE 3
VENTAS EN UNIDADES AÑO 2001

PRODUCTO	Ene-01	Feb-01	Mar-01	Abr-01	May-01	Jun-01	Jul-01	Ago-01	Sep-01	Oct-01	Nov-01	Dic-01
1	287,386	172,080	468,115	545,664	439,930	276,586	294,106	566,142	570,643	178,848	184,944	411,264
2	476,054	508,245	468,288	477,792	781,398	592,143	165,120	373,794	721,299	720,739	402,100	341,728
3	48,586	88,079	112,253	61,008	93,466	740	48,931	7,221	57,581	38,016	34,992	31,008
4	69,632	67,360	57,856	57,535	74,683	34,640	51,048	71,280	22,744	62,835	44,811	30,310
5	0	14,192	2,339	1,812	1,755	37,334	4,279	77,041	1,025	460	299	169
6	59,386	29,442	12,171	40,366	105,669	39,756	30,442	16,959	26,147	64,795	35,267	13,812
7	0	1,000	12,808	2,133	6,766	3,039	4,898	2,933	9,330	12,328	26,794	16,109
8	10,054	11,168	28,512	7,168	3,936	192	3,552	0	0	0	0	0
9	2,496	1,344	3,936	3,571	5,280	1,104	0	15,552	11,328	1,920	5,280	6,360
10	307	82,102	5,827	14,560	13,448	7,232	24,896	46,038	9,027	2,160	1,360	100
11	400	9,562	1,845	1,332	1,587	398	400	4,147	7,330	7,333	15,136	11,007
12	17,818	16,387	16,877	7,325	8,842	6,230	9,638	17,526	7,998	3,842	48	0
13	5,443	8,294	12,768	12,720	7,200	8,054	7,661	15,725	11,318	7,142	624	1,512
14	17,971	64,042	85,171	36,749	21,907	25,152	120,077	207,379	56,890	10,627	2,064	0
15	2,867	1,572	8,809	3,978	12,674	5,269	12,566	8,910	16,830	14,401	16,114	22,456
16	3,533	6,317	10,541	9,811	8,150	5,088	3,283	14,525	11,918	5,453	1,210	1,212
17	37,180	62,736	82,992	70,675	40,051	32,054	35,424	43,718	21,773	15,917	9,754	6,528
18	45,120	38,400	24,960	132,920	130,400	118,800	38,400	73,280	73,920	66,560	38,560	30,000
19	0	0	534	534	13,000	200	898	1,328	4,533	733	13,632	133
20	34,588	61,960	37,196	41,808	54,136	30,672	56,064	31,536	777,326	48,536	58,106	73,160
21	5,731	13,884	3,703	9,859	5,904	0	9,970	8,958	13,435	10,848	11,635	16,056
22	2,436	3,878	7,853	8,218	5,069	19	3,514	9,734	10,310	3,338	0	144
23	2,813	5,184	10,598	5,818	4,493	5,165	6,442	11,952	8,794	1,805	278	2,328
24	1,440	38,237	35,539	22,138	11,587	15,955	58,070	22,118	30,346	4,925	9,677	12,000
25	4,147	16,546	20,537	16,630	15,458	8,246	21,994	12,778	2,825	8,062	0	225
26	2,304	7,902	9,366	9,898	10,170	1,909	6,880	9,262	2,142	400	354	444
27	2,630	7,507	14,765	6,096	10,195	3,715	2,870	0	8,006	2,822	3,341	3,480
28	2,304	3,341	7,488	4,896	3,398	3,456	5,856	8,246	7,843	0	278	2,208
29	2,240	1,120	13,920	4,000	0	7,968	4,320	9,560	1,440	9,600	4,480	400
30	4,838	0	4,838	3,974	1,786	2,534	6,307	3,802	5,069	1,133	0	1,788

PRODUCTO	Ene-01	Feb-01	Mar-01	Abr-01	May-01	Jun-01	Jul-01	Ago-01	Sep-01	Oct-01	Nov-01	Dic-01
31	2,419	2,467	5,587	4,493	3,043	461	3,062	6,682	5,011	0	259	1,356
32	0	106,445	24,730	24,883	20,736	0	78,797	105,283	17,779	0	4,147	0
33	2,998	4,074	2,796	4,124	11,878	3,264	3,487	3,775	4,540	4,731	2,674	3,780
34	972	3,028	3,821	2,803	1,037	960	2,986	4,781	4,896	1,290	0	144
35	2,078	2,817	4,202	3,572	5,649	2,534	6,594	3,685	9,488	8,150	3,366	5,052
36	3,226	0	3,226	2,880	1,613	886	5,558	3,226	4,205	1,642	0	4,824
37	4,608	7,747	3,398	0	0	0	0	10,003	0	0	442	0
38	1,891	13,303	13,046	10,080	6,912	4,493	2,592	8,813	8,467	1,728	2,074	3,960
39	226	296	322	795	0	687	1,160	664	512	448	448	318
40	3,629	10,022	13,522	10,714	3,110	4,435	2,592	4,838	11,405	1,901	3,456	1,548
41	2,419	1,190	4,694	5,040	1,267	0	5,875	1,613	115	1,574	1,920	1,476
42	2,765	6,989	3,130	0	0	0	0	9,514	0	0	211	0
43	2,333	0	27,202	3,100	127	4,334	0	2,199	1,640	0	0	0
44	4,915	2,189	7,728	4,262	5,990	1,325	5,645	2,074	3,072	2,266	2,150	0
45	0	0	12,614	5,414	3,802	1,498	16,704	27,072	20,390	4,032	403	0
46	2,419	0	2,419	2,582	2,015	1,498	2,909	2,534	3,226	960	0	3,732
47	4,925	0	2,187	2,117	1,375	639	1,006	4,002	0	278	633	2,016
48	2,851	5,995	6,298	5,958	2,419	480	1,229	986	3,533	4,102	1,962	4,632
49	1,459	2,227	2,957	3,279	1,248	269	1,075	1,882	883	0	0	0
50	0	0	3,000	1,027	887	866	1,590	800	1,798	987	3,373	22,256
51	2,131	5,674	2,266	0	0	0	0	5,741	0	0	230	0
52	1,267	1,766	883	806	403	1,555	4,339	3,552	0	749	634	3,780
53	0	0	0	2,592	9,120	346	1,210	403	442	432	630	6,768
54	2,851	6,216	1,578	4,960	2,008	285	787	909	3,184	3,027	1,974	4,272
55	2,035	8,467	6,394	8,640	5,184	0	2,074	5,184	5,357	346	2,246	1,296
56	2,851	3,619	0	4,403	2,838	77	4,320	1,334	96	4,678	2,995	1,202
57	200	400	2,150	2,592	3,230	998	2,160	1,479	3,769	578	197	2,259
58	770	136	3,930	5,904	637	346	2,333	2,938	0	0	3,629	0
59	173	7,265	2,126	3,871	3,461	2,124	8,520	12,662	1,380	1,740	890	750
60	7,344	8,496	9,936	3,576	2,592	864	4,080	6,768	3,744	1,152	720	0
61	0	0	2,851	8,000	0	518	400	1,598	1,200	1,389	695	7,387
62	8,506	2,362	3,523	2,074	912	4,493	1,123	3,936	1,670	1,354	998	324
63	2,419	0	2,419	806	691	173	2,218	1,498	1,382	1,267	0	1,068

PRODUCTO	Ene-01	Feb-01	Mar-01	Abr-01	May-01	Jun-01	Jul-01	Ago-01	Sep-01	Oct-01	Nov-01	Dic-01
64	100	9,769	3,252	0	4,266	40	5,536	134	1,880	4,189	5,598	11,315
65	2,399	3,267	9,965	13,190	10,998	2,399	16,130	5,036	4,060	0	0	0
66	1,152	1,037	2,592	1,901	749	0	1,238	2,832	2,074	0	58	48
67	300	220	8,900	4,098	16,793	1,242	2,162	24,680	11,195	1,510	20,524	5,612
68	2,074	0	21,734	1,613	1,382	1,920	6,950	10,090	14,594	480	0	0
69	1,597	2,765	7,603	1,805	1,670	346	806	1,190	979	461	230	0
70	1,450	2,765	6,864	2,150	1,267	230	1,037	1,555	771	576	115	144
71	120	0	0	738	0	554	216	1,169	0	470	936	46
72	235	461	979	259	490	922	922	864	310	134	101	0
73	0	0	0	3,686	1,728	461	1,613	0	864	374	758	3,744
74	922	1,709	384	634	230	1,555	1,978	3,033	0	566	230	900
75	5,904	7,200	5,472	5,136	864	1,152	3,024	6,480	3,168	576	576	0
76	8,928	9,792	1,968	0	0	0	0	8,520	5,904	2,304	720	1,260
77	509	1,430	5,123	3,264	1,152	115	1,958	1,382	806	0	402	0
78	0	39	0	0	399	0	720	1,034	604	160	1,238	2,136
79	96	160	3,694	284	500	291	808	789	220	240	138	72
80	1,075	1,901	6,221	6,509	1,661	1,382	1,843	5,702	1,968	0	115	0
81	0	461	3,859	1,267	403	383	403	0	0	0	0	1,008
82	0	0	0	0	1,158	395	400	1,200	6,716	3,110	2,855	2,281
83	1,315	2,246	6,566	5,472	2,064	1,210	2,899	3,974	173	0	115	0
84	0	0	800	5,988	0	200	2,812	1,199	3,554	40	398	1,284
85	5,322	0	0	0	13,109	0	0	10,387	0	795	0	830
86	394	240	720	0	173	480	377	9,684	269	480	120	216
87	0	0	3,812	1,600	400	200	2,932	8,733	5,232	3,199	798	3,571
88	5,203	1,757	2,160	1,382	576	3,014	0	2,765	1,622	454	912	252
89	0	0	0	934	800	192	1,600	0	5,322	2,946	2,165	0
90	400	0	1,000	6,105	0	0	0	0	0	0	0	0
91	730	653	1,766	1,382	269	269	193	77	0	0	154	0
92	576	1,075	250	115	230	288	2,170	1,190	845	319	144	636
93	614	1,267	3,226	1,229	1,498	230	576	922	691	115	115	1,008
94	1,123	1,114	1,152	0	0	0	0	2,813	0	0	115	0
95	1,853	1,382	4,838	4,147	1,382	1,037	1,574	2,246	0	0	58	0
96	4,008	0	920	0	4,115	1,198	0	1,598	2,000	9,000	80	17,413

PRODUCTO	Ene-01	Feb-01	Mar-01	Abr-01	May-01	Jun-01	Jul-01	Ago-01	Sep-01	Oct-01	Nov-01	Dic-01
97	0	275	66	0	2,646	2,033	0	7,786	199	3,807	2,479	3,960
98	3,988	640	0	0	0	0	0	771	1,891	242	200	590
99	4,032	0	4,032	0	0	0	0	0	0	0	0	0
100	100	400	2,400	0	0	0	1,698	2,381	9,953	1,559	2,380	84
101	3,149	1,373	1,378	950	403	1,574	835	2,006	1,248	509	739	36
102	163	499	3,280	1,421	1,037	115	1,037	403	461	0	230	0
103	106	316	709	470	120	400	1,060	360	250	370	220	200
104	379	660	482	600	640	720	920	280	360	820	280	600
105	0	0	400	0	1,198	0	0	1,640	434	3,072	600	2,386
106	2,880	0	3,225	0	2,534	0	0	0	0	0	0	0
107	0	0	0	0	262	40	3,994	400	0	400	80	16,289
108	2,304	1,690	1,728	634	230	1,440	269	1,910	960	739	662	36
109	154	259	275	196	97	160	140	5,069	80	100	1,705	72
110	730	180	998	538	384	77	307	269	192	115	77	48
111	115	922	2,544	1,190	806	0	922	346	346	0	346	0
112	0	0	0	1,012	319	798	355	480	0	560	0	350
113	120	178	395	318	91	200	158	100	50	160	120	50
114	0	0	0	400	200	2,400	4,800	96	800	6,112	1,572	0
115	77	458	1,029	658	276	0	120	592	330	218	0	0
116	0	0	0	200	3,782	880	8,524	1,600	886	0	0	0
117	2,880	0	2,880	0	0	0	0	0	0	0	0	0
118	0	0	0	800	200	0	0	0	1,086	264	4,134	9,526
119	230	691	19	230	0	115	893	240	672	115	115	1,356
120	2,094	0	0	4,720	0	0	0	0	0	0	0	0
121	749	307	653	346	230	0	346	422	307	154	115	0
122	0	0	0	0	0	0	6,480	7,258	0	0	346	0
123	62	421	998	499	307	77	269	154	77	0	77	0
124	0	0	2,412	2,520	5,700	650	0	0	0	0	0	0
125	0	0	0	240	0	880	640	0	160	0	840	750
126	66	0	0	4,000	0	38	1,295	134	365	3,742	2,593	0
127	0	1,399	1,008	46	0	0	1,440	288	0	0	0	0
128	0	0	4,400	1,469	0	0	0	0	833	1,582	0	0
129	0	796	400	0	600	0	0	800	1,860	3,449	200	1,000

PRODUCTO	Ene-01	Feb-01	Mar-01	Abr-01	May-01	Jun-01	Jul-01	Ago-01	Sep-01	Oct-01	Nov-01	Dic-01
130	0	80	740	0	116	0	2,006	0	11,446	200	280	4,739
131	0	200	0	0	0	0	264	1,986	0	2,679	0	2,878
132	188	0	200	0	2,952	0	781	0	0	596	614	0
133	0	2,986	195	560	2,550	0	200	2,752	800	4,849	900	1,620
134	269	95	777	647	278	180	109	37	80	120	20	0
135	2,880	0	922	0	922	0	0	576	0	0	0	0
136	0	0	0	1,978	0	0	0	0	1,391	592	200	1,616
137	394	116	850	367	295	60	159	58	140	100	0	0
138	0	0	12,800	1,271	198	0	583	1,879	1,410	400	5,438	276
139	115	373	601	0	0	0	660	100	410	90	80	0
140	730	538	9	60	0	0	819	56	12	0	0	0
141	730	422	57	3	0	20	812	60	77	0	20	0
142	0	0	0	0	0	0	0	806	2,822	0	0	1,008
143	3,932	76	240	0	529	0	787	0	8,000	800	80	0
144	0	0	0	709	166	40	320	22	150	80	8	0
145	730	0	730	192	115	0	77	269	154	115	38	0
146	0	0	0	0	200	400	0	200	398	0	0	4,101
147	2,880	0	461	0	922	0	0	0	0	0	0	0
148	62	246	0	52	18	160	720	220	60	120	20	73
149	0	2,183	239	560	3,750	0	0	760	1,333	529	577	4,271
150	0	0	0	689	178	80	160	120	110	80	0	0
151	0	331	437	110	0	80	695	264	0	80	0	0
152	0	0	998	600	8,662	1,118	798	2,000	0	0	1,598	4,440
153	0	0	0	620	0	80	140	40	160	65	268	0
154	1,613	0	1,613	0	0	0	0	0	0	0	0	0
155	58	398	16	0	80	40	184	260	320	160	80	48
156	0	591	198	0	0	0	2,665	1,700	0	0	0	0
157	643	230	499	115	77	0	115	115	115	77	125	0
158	0	39	0	0	1,067	0	1,600	0	1,608	7,970	80	0
159	730	538	0	80	0	0	151	120	77	0	20	48
160	0	0	0	182	800	2,000	0	4,796	0	0	0	0
161	0	0	0	0	0	0	2,280	3,464	0	0	0	0
162	0	0	576	115	269	77	77	115	77	182	192	0

PRODUCTO	Ene-01	Feb-01	Mar-01	Abr-01	May-01	Jun-01	Jul-01	Ago-01	Sep-01	Oct-01	Nov-01	Dic-01
163	48	144	764	401	20	0	102	80	105	59	0	0
164	730	230	346	154	77	0	0	77	192	77	38	0
165	48	440	384	154	77	77	77	115	77	0	134	0
166	396	1,594	1,000	800	1,354	479	851	2,396	850	5,288	80	1,255
167	0	1,340	0	480	4,141	0	0	760	716	1,600	1,100	433
168	701	240	346	192	77	0	38	77	38	77	38	0
169	566	240	422	38	77	0	48	77	230	77	0	0
170	0	0	0	459	80	0	100	0	60	79	288	0
171	653	240	346	115	77	0	38	77	77	77	38	0
172	0	2,256	3,600	1,830	800	0	4,000	778	795	0	200	125
173	0	0	423	260	100	60	295	160	5	100	40	0
174	0	0	0	0	0	0	199	298	2,071	200	0	1,417
175	5,050	0	0	0	0	0	0	0	0	0	0	0
176	0	326	277	280	0	80	293	20	40	80	0	0
177	0	0	0	0	2,000	0	240	599	894	0	0	0
178	0	1,920	64	80	0	0	160	0	0	0	0	0
179	67	231	314	100	60	20	180	196	45	100	0	0
180	0	0	6,400	774	0	408	973	120	150	931	1,811	955
181	0	0	0	0	0	0	999	0	0	0	0	0
182	29	0	622	380	14	0	100	18	60	0	20	0
183	2,510	0	0	1,490	0	0	0	2,000	798	1,224	0	355
184	0	0	400	2,200	53	50	0	0	4,882	3,476	533	557
185	0	100	0	2,000	0	0	194	0	266	803	1,808	0
186	1,647	0	0	2,340	0	0	0	0	0	4,000	0	15
187	0	0	0	0	2,478	0	0	200	0	0	398	2,410
188	1,600	1,133	2,034	0	0	40	0	0	79	0	0	100
189	115	230	346	115	77	0	38	77	115	77	96	0
190	62	102	6	40	140	40	160	40	140	120	20	73
191	0	1,189	1,500	1,189	0	0	0	0	0	1,600	80	2,312
192	58	169	279	20	40	20	140	120	34	120	0	0
193	706	120	600	280	0	50	533	396	0	6,977	90	0
194	806	0	806	0	0	0	0	0	0	0	0	0
195	0	50	0	381	2,550	0	0	492	0	1,600	99	1,000

PRODUCTO	Ene-01	Feb-01	Mar-01	Abr-01	May-01	Jun-01	Jul-01	Ago-01	Sep-01	Oct-01	Nov-01	Dic-01
196	3,062	0	0	0	0	0	0	0	0	0	0	0
197	0	0	7,320	1,130	0	0	0	0	0	0	0	0
198	0	200	0	0	0	0	66	395	400	1,199	0	0
199	0	0	400	1,600	399	850	4,704	0	0	0	0	0
200	0	0	0	0	0	0	0	0	77	0	1,040	0
201	62	479	192	0	0	0	0	0	0	0	0	0
202	0	144	16	0	20	20	84	120	80	80	20	0
203	4,008	0	240	0	50	0	0	0	0	200	0	0
204	0	360	400	200	0	378	2,000	1,400	390	853	480	0
205	0	154	586	115	0	0	0	0	0	0	230	0
206	0	100	0	0	0	0	0	0	4,866	266	0	0
207	0	384	62	0	0	0	0	20	5	0	0	0
208	0	1,001	950	0	0	499	0	113	200	40	480	1,782
209	1,398	1,191	0	0	0	0	0	0	0	0	0	0
210	0	0	19	181	80	0	0	0	0	40	0	0
211	0	0	0	80	0	0	160	0	0	0	0	100
212	0	0	0	0	590	0	0	0	0	0	0	0
213	0	100	0	0	960	0	0	0	0	0	0	0
214	0	399	250	0	0	100	1,320	282	0	0	0	46
215	0	0	0	200	0	155	244	38	0	0	0	0
216	0	100	0	0	400	0	400	798	110	265	0	0
217	0	0	0	0	0	0	40	0	0	0	0	48
218	0	120	295	799	0	0	0	0	0	0	0	0
219	0	0	0	40	20	0	0	20	0	0	0	0
220	115	0	0	0	0	0	0	0	0	0	0	0
221	0	77	0	0	0	0	0	0	0	0	0	0
222	195	180	0	0	0	0	0	0	0	0	0	0
223	0	10	0	0	0	0	0	0	0	0	0	0

APENDICE 4
VENTAS EN DOLARES 2001

PRODUCTO	Ene-01	Feb-01	Mar-01	Abr-01	May-01	Jun-01	Jul-01	Ago-01	Sep-01	Oct-01	Nov-01	Dic-01
1	29,372.42	17,514.93	47,692.64	53,385.50	41,093.48	26,435.82	28,021.18	52,708.29	50,559.38	16,811.70	17,828.16	28,777.46
2	69,660.50	67,014.59	65,010.18	67,523.02	80,936.98	80,169.19	25,138.38	51,432.88	103,815.94	104,936.17	58,736.61	39,976.93
3	34,431.33	47,053.85	63,813.97	42,372.94	64,777.67	701.82	33,900.86	6,138.66	40,006.68	26,443.31	24,291.66	17,226.76
4	21,273.07	21,520.30	18,211.20	18,653.90	24,261.84	11,113.57	16,642.36	21,554.77	7,241.66	20,174.62	13,555.14	7,285.68
5	0.00	12,020.38	2,124.04	1,728.98	1,489.82	25,909.64	3,730.02	53,281.29	891.02	444.35	297.06	135.20
6	20,784.96	9,524.58	3,884.06	13,046.83	28,407.32	11,109.37	7,864.59	4,797.99	6,798.86	16,686.82	8,901.66	2,919.66
7	0.00	280.00	3,006.01	492.38	132.90	594.37	993.20	680.50	2,217.88	2,820.11	5,494.86	2,784.78
8	2,559.22	2,831.98	7,136.99	1,814.44	620.17	51.84	829.67	0.00	0.00	0.00	0.00	0.00
9	673.92	338.96	986.39	98.05	1,258.58	415.64	0.00	3,680.85	18,643.98	466.58	1,244.23	639.44
10	48.88	9,812.45	768.54	1,834.13	1,643.55	98.38	3,099.70	5,476.65	1,136.39	315.64	200.10	13.43
11	0.00	2,625.60	573.78	345.02	365.06	108.50	108.80	1,070.03	1,761.40	1,544.42	2,545.42	1,743.66
12	8,300.15	7,583.60	7,868.80	3,417.38	4,128.34	2,905.30	4,457.94	8,156.46	3,765.52	1,800.11	26.31	0.00
13	2,315.40	3,562.77	5,442.00	5,421.62	3,069.54	3,428.10	3,259.54	6,681.23	4,838.20	3,056.48	263.10	545.24
14	1,520.68	5,610.11	6,783.38	2,960.71	1,703.85	1,851.05	8,779.87	14,247.22	4,255.27	707.90	166.50	0.00
15	1,514.17	767.98	4,394.82	2,516.58	8,201.98	2,964.20	8,320.94	3,995.25	9,769.03	7,831.29	9,057.94	10,700.07
16	1,508.27	2,712.16	4,494.23	4,178.31	3,476.15	2,176.63	1,400.25	6,174.98	5,096.71	2,339.03	511.76	422.58
17	5,175.45	8,127.90	10,585.14	9,036.64	5,157.23	4,076.76	4,141.88	450.00	2,609.95	1,914.94	1,173.00	676.78
18	2,458.85	2,080.70	1,361.26	7,164.31	6,994.22	6,373.74	2,117.95	4,036.42	3,991.54	3,578.99	2,114.07	1,337.09
19	0.00	0.00	120.46	149.41	2,850.40	50.40	307.14	332.00	1,025.62	150.02	2,777.40	24.34
20	5,435.63	9,308.70	5,234.97	6,574.25	7,633.64	4,458.18	7,854.96	4,870.28	111,853.17	7,407.66	8,627.21	8,789.18
21	1,547.42	3,748.68	999.86	2,770.97	1,655.58	0.00	2,804.01	2,485.97	3,646.74	2,912.80	3,137.81	3,488.54
22	1,042.54	1,669.96	3,351.48	3,507.41	2,156.42	8.15	1,496.04	4,137.55	4,398.44	1,417.91	0.00	52.99
23	1,043.62	1,931.83	3,912.30	2,169.31	1,673.07	1,928.18	2,480.78	4,449.10	3,303.35	673.44	104.27	700.89
24	182.53	4,169.76	3,178.66	2,546.94	1,100.02	1,653.22	4,568.97	1,290.24	3,571.54	624.98	967.74	643.20
25	995.33	3,599.93	4,387.68	3,449.10	3,266.16	1,733.00	4,882.07	2,777.24	613.30	221.19	0.00	43.20
26	967.68	3,074.90	1,118.73	3,730.09	3,808.73	735.53	2,846.29	3,726.65	825.06	175.28	150.67	154.54
27	1,551.94	4,259.38	8,252.58	3,398.46	4,871.32	2,039.09	1,563.30	0.00	4,365.74	1,563.30	1,835.18	1,052.50
28	854.27	1,251.20	27,688.89	1,818.40	1,258.34	1,304.30	2,251.46	3,080.83	2,948.88	0.00	120.40	661.90
29	963.20	481.60	5,807.02	1,720.00	0.00	3,422.11	1,836.96	3,830.80	619.20	4,128.00	1,788.84	137.60
30	1,446.68	0.00	1,446.68	1,693.71	758.55	1,076.15	1,919.96	988.42	2,124.21	492.74	0.00	609.06
31	903.90	919.54	2,068.57	1,662.44	1,130.73	177.23	1,132.82	2,464.10	1,850.32	0.00	96.59	405.57
32	0.00	6,280.00	1,547.14	1,268.17	1,209.62	0.00	3,403.58	4,370.66	770.89	0.00	170.03	0.00
33	986.69	1,334.61	925.68	1,354.88	3,019.87	1,071.28	1,149.58	1,238.46	1,372.32	1,560.94	887.47	995.73
34	416.81	1,338.38	1,598.63	1,195.74	440.26	411.72	1,273.88	2,030.05	2,078.97	547.60	0.00	52.99
35	644.94	977.51	1,518.78	1,546.62	1,855.06	751.82	2,457.78	1,271.25	2,568.70	2,557.95	992.16	1,333.38
36	964.46	0.00	964.46	1,231.05	684.81	374.34	1,594.29	838.66	1,757.33	708.80	0.00	1,387.62
37	1,956.66	3,622.10	1,443.78	0.00	0.00	0.00	0.00	4,494.46	0.00	0.00	1,060.15	0.00

BIBLIOTECA CENTRAL
"ENRIQUE BERNARDO NÚÑEZ"

PRODUCTO	Ene-01	Feb-01	Mar-01	Abr-01	May-01	Jun-01	Jul-01	Ago-01	Sep-01	Oct-01	Nov-01	Dic-01
38	283.82	1,878.62	1,816.62	1,428.34	969.70	626.08	366.97	1,232.99	1,185.00	247.42	291.29	441.31
39	425.41	622.75	676.06	1,672.64	0.00	1,444.40	2,438.78	1,262.08	1,069.90	916.86	908.93	506.35
40	544.56	1,400.07	1,788.54	1,516.34	430.94	618.10	375.04	682.27	1,587.76	271.35	482.74	174.14
41	1,237.98	625.49	2,274.87	2,471.15	533.62	0.00	2,788.02	760.37	63.36	739.93	943.30	547.22
42	1,178.06	3,298.71	1,329.58	0.00	0.00	0.00	0.00	4,292.45	0.00	0.00	961.92	0.00
43	716.41	0.00	10,834.39	1,401.62	54.23	1,678.94	0.00	875.36	788.16	0.00	0.00	0.00
44	1,769.47	787.97	2,758.06	1,533.22	2,156.54	476.93	2,032.13	380.50	1,105.92	815.62	774.14	0.00
45	0.00	0.00	1,445.16	608.27	414.74	165.90	1,743.90	2,775.55	2,103.69	414.74	41.47	0.00
46	723.34	0.00	723.34	1,105.37	855.66	635.91	911.06	858.94	1,321.95	407.64	0.00	1,185.06
47	2,817.49	0.00	2,044.22	1,740.93	1,033.69	594.15	833.79	1,947.82	0.00	236.64	468.42	661.25
48	920.16	2,013.50	2,126.23	1,983.13	747.32	152.02	425.46	345.37	1,239.44	1,438.85	688.62	1,300.74
49	1,093.54	1,670.40	2,216.74	2,276.92	806.45	172.81	691.25	1,209.68	576.03	0.00	0.00	0.00
50	0.00	0.00	1,202.40	356.38	422.87	454.63	630.00	268.80	643.91	349.10	1,161.62	5,845.36
51	904.95	2,677.80	982.70	0.00	0.00	0.00	0.00	2,547.15	0.00	0.00	477.33	0.00
52	471.42	732.79	335.56	304.84	152.42	584.46	1,704.57	1,392.22	0.00	325.82	288.61	1,148.93
53	0.00	0.00	0.00	1,362.26	4,168.51	162.94	609.10	190.10	208.20	203.67	234.62	1,682.34
54	920.16	2,055.09	1,910.60	1,666.38	596.17	94.90	270.65	318.68	1,117.36	1,062.09	692.86	1,199.86
55	305.42	1,188.77	896.11	1,240.78	726.45	0.00	295.10	730.08	754.10	51.84	319.19	143.56
56	920.16	1,175.09	0.00	1,498.27	883.82	21.57	1,490.46	467.92	33.70	1,641.45	1,051.20	339.23
57	114.80	218.40	736.89	1,005.59	1,120.80	334.77	587.52	445.51	1,095.94	195.44	61.40	643.82
58	346.86	76.21	2,236.93	2,083.58	246.25	138.24	779.22	1,036.86	0.00	0.00	1,273.86	0.00
59	30.87	1,298.91	380.86	693.69	619.48	380.68	1,522.64	2,265.14	247.44	313.42	160.04	108.59
60	1,038.72	1,219.93	1,353.72	522.74	386.97	122.20	593.19	977.25	544.06	162.94	101.83	0.00
61	0.00	0.00	1,580.65	2,240.00	0.00	188.70	196.00	479.61	416.00	649.82	256.54	2,100.88
62	2,010.90	674.74	852.69	465.45	202.85	962.81	217.46	973.28	371.36	297.38	240.74	62.86
63	723.34	0.00	723.34	342.40	293.49	66.68	613.49	389.38	586.98	542.15	0.00	364.48
64	21.62	2,551.65	712.31	0.00	1,286.58	10.64	1,427.43	33.66	498.24	997.35	1,145.93	2,193.22
65	387.02	470.23	1,820.45	2,000.34	1,870.62	373.05	3,135.10	876.07	687.60	0.00	0.00	0.00
66	428.91	382.82	959.84	705.37	276.46	0.00	459.92	1,042.41	765.64	0.00	21.27	15.36
67	38.40	28.16	1,359.20	876.64	2,732.04	308.37	589.38	3,642.76	2,064.80	379.78	3,374.90	1,089.14
68	248.14	0.00	2,321.09	216.11	155.52	257.28	802.56	1,266.24	1,689.76	64.32	0.00	0.00
69	445.61	961.15	2,642.42	625.41	572.74	118.50	276.50	414.74	342.33	158.00	92.16	0.00
70	501.22	961.15	2,376.05	750.49	434.50	79.00	355.50	546.41	237.00	210.66	46.08	46.08
71	215.36	0.00	0.00	1,533.81	0.00	754.62	408.80	1,575.66	0.00	653.98	1,305.22	49.46
72	224.12	454.38	1,013.83	246.54	481.77	881.42	862.90	816.09	246.53	168.85	121.42	0.00
73	0.00	0.00	0.00	1,968.71	814.68	217.25	827.36	0.00	407.34	176.51	373.70	985.13
74	347.36	711.88	142.97	239.26	85.07	584.46	777.42	1,204.18	0.00	251.39	88.61	341.53
75	835.05	1,033.49	777.34	746.78	135.78	162.94	434.50	921.83	463.80	81.47	81.47	0.00
76	1,262.76	1,403.23	272.24	0.00	0.00	0.00	0.00	1,229.86	857.56	325.87	101.83	142.57
77	183.17	443.88	1,629.78	1,025.01	355.50	41.47	604.34	432.52	248.85	0.00	124.14	0.00

BIBLIOTECA CENTRAL

PRODUCTO	Ene-01	Feb-01	Mar-01	Abr-01	May-01	Jun-01	Jul-01	Ago-01	Sep-01	Oct-01	Nov-01	Dic-01
78	0.00	83.89	0.00	0.00	536.53	0.00	30.42	753.34	381.73	101.12	825.86	1,079.96
79	98.99	165.80	3,804.36	293.76	515.04	300.12	833.40	813.84	226.84	247.36	141.73	59.44
80	183.35	323.14	1,040.76	1,106.50	282.34	235.01	313.34	969.41	329.76	0.00	19.58	0.00
81	0.00	414.72	3,006.89	1,036.84	311.06	291.06	311.06	0.00	0.00	0.00	0.00	622.12
82	0.00	0.00	0.00	0.00	660.84	185.35	173.60	492.80	2,735.70	1,235.22	1,053.83	631.35
83	223.58	381.89	1,112.76	930.24	350.88	205.63	492.86	675.65	29.38	0.00	19.58	0.00
84	0.00	0.00	403.20	2,130.97	0.00	91.00	975.98	421.11	1,617.34	15.96	137.94	429.45
85	1,358.45	0.00	0.00	0.00	3,135.51	0.00	0.00	2,536.96	0.00	273.10	0.00	217.62
86	150.10	92.90	274.90	0.00	65.66	183.52	145.75	3,323.55	103.19	183.04	45.76	65.90
87	0.00	0.00	994.29	412.80	132.00	53.20	839.29	1,454.66	1,498.00	1,016.58	337.90	854.18
88	1,261.68	535.17	513.52	309.73	125.50	650.86	0.00	651.99	364.30	87.54	222.23	50.51
89	0.00	0.00	0.00	320.06	319.20	87.36	526.40	0.00	1,532.02	870.46	649.63	0.00
90	352.00	0.00	586.00	3,920.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91	554.50	496.13	1,342.46	1,060.62	204.29	204.29	146.53	58.37	0.00	0.00	116.74	0.00
92	216.22	452.71	92.75	42.54	85.07	109.75	859.67	469.07	304.11	85.07	57.60	189.31
93	207.62	434.50	1,138.38	421.33	513.50	79.00	197.50	329.16	250.16	46.08	46.08	191.92
94	476.14	523.14	499.94	0.00	0.00	0.00	0.00	1,304.40	0.00	0.00	424.34	0.00
95	314.96	235.01	814.14	705.02	235.01	176.26	267.65	381.89	0.00	0.00	9.79	0.00
00	681.36	0.00	153.28	0.00	709.30	201.20	0.00	287.73	304.00	1,529.60	14.72	2,013.46
97	0.00	76.09	19.98	0.00	897.82	533.89	0.00	1,863.06	52.98	937.62	716.11	872.54
98	2,169.47	537.60	0.00	0.00	0.00	0.00	0.00	387.61	762.41	114.03	123.20	222.78
99	1,207.58	0.00	1,207.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	21.62	87.95	540.00	0.00	0.00	0.00	639.36	803.52	2,440.69	392.10	594.34	18.34
101	760.62	406.54	327.79	208.93	89.26	342.27	188.59	470.02	277.89	121.22	170.58	13.48
102	58.75	298.22	1,224.62	438.45	319.95	41.47	319.95	124.42	142.20	0.00	70.81	0.00
103	67.12	200.77	448.49	296.72	75.60	252.32	670.02	217.96	157.97	233.57	138.68	100.80
104	173.66	303.56	221.42	275.40	293.76	330.48	422.28	127.32	163.88	376.38	128.52	220.32
105	0.00	0.00	288.00	0.00	568.75	0.00	0.00	693.60	260.16	1,126.51	285.72	729.21
106	635.90	0.00	712.22	0.00	559.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
107	0.00	0.00	0.00	0.00	93.15	10.64	1,078.27	100.80	0.00	100.80	20.72	3,093.47
108	539.86	508.85	413.82	141.20	49.36	308.59	25.78	466.43	216.18	170.59	149.26	13.46
109	76.18	127.72	130.78	98.00	47.40	79.20	69.60	1,824.69	39.84	49.68	613.62	22.58
110	511.30	176.40	755.28	408.58	291.84	58.37	233.47	204.29	145.92	87.55	58.37	29.18
111	41.47	284.40	811.06	367.34	248.85	0.00	284.40	106.65	106.65	0.00	106.65	0.00
112	0.00	0.00	0.00	799.48	233.38	543.95	262.20	369.76	0.00	403.52	0.00	176.96
113	168.66	245.03	537.48	440.02	136.98	322.88	233.52	143.16	70.94	253.28	171.60	57.20
114	0.00	0.00	0.00	80.00	40.00	496.00	1,152.00	17.28	198.00	1,022.46	324.78	0.00
115	76.80	451.34	1,005.06	650.58	271.52	0.00	120.00	581.92	322.34	217.60	0.00	0.00
116	0.00	0.00	0.00	53.20	785.29	176.00	2,286.72	378.00	221.60	0.00	0.00	0.00
117	862.56	0.00	862.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

BIBLIOTECA CENTRAL
POLITECNICO DEL EJERCITO
ESPE

PRODUCTO	Ene-01	Feb-01	Mar-01	Abr-01	May-01	Jun-01	Jul-01	Ago-01	Sep-01	Oct-01	Nov-01	Dic-01
118	0.00	0.00	0.00	192.00	40.00	0.00	0.00	0.00	233.20	52.73	803.45	1,696.41
119	85.06	296.11	7.68	85.07	0.00	42.54	367.21	102.82	236.75	42.54	42.53	338.12
120	657.60	0.00	0.00	1,872.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
121	569.09	232.87	496.13	262.66	175.10	0.00	262.66	321.02	233.47	116.74	87.55	0.00
122	0.00	0.00	0.00	0.00	0.00	0.00	1,118.90	1,246.78	0.00	0.00	63.94	0.00
123	62.71	414.65	755.28	379.39	233.47	58.37	204.29	116.74	58.37	0.00	58.37	0.00
124	0.00	0.00	482.76	504.00	1,140.00	130.08	0.00	0.00	0.00	0.00	0.00	0.00
125	0.00	0.00	0.00	129.00	0.00	457.60	341.20	0.00	76.80	0.00	391.41	266.61
126	14.36	0.00	0.00	850.00	0.00	10.22	414.46	33.66	85.09	821.04	588.80	0.00
127	0.00	652.96	481.15	21.77	0.00	0.00	687.36	137.28	0.00	0.00	0.00	0.00
128	0.00	0.00	970.00	282.01	0.00	0.00	0.00	0.00	192.02	538.02	0.00	0.00
129	0.00	178.30	92.80	0.00	142.40	0.00	0.00	179.20	424.58	753.40	49.60	156.40
130	0.00	16.00	116.32	0.00	23.82	0.00	407.54	0.00	179.50	33.60	70.72	552.54
131	0.00	78.40	0.00	0.00	0.00	0.00	151.45	700.18	0.00	910.93	0.00	718.35
132	146.64	0.00	102.20	0.00	1,153.39	0.00	238.88	0.00	0.00	217.39	187.22	0.00
133	0.00	518.87	49.97	173.60	443.89	0.00	43.20	563.36	153.60	849.66	167.20	372.66
134	195.94	67.57	567.82	469.74	199.03	127.20	77.78	24.66	56.24	83.04	12.08	0.00
135	635.90	0.00	203.49	0.00	203.49	0.00	0.00	114.62	0.00	0.00	0.00	0.00
136	0.00	0.00	0.00	1,014.92	0.00	0.00	0.00	0.00	562.61	269.36	72.80	464.94
137	288.42	83.92	622.10	267.62	215.54	44.16	115.90	43.09	100.40	69.64	0.00	0.00
138	0.00	0.00	1,979.83	324.73	50.00	0.00	177.91	354.58	288.38	124.00	1,079.29	52.14
139	73.17	226.47	380.46	0.00	0.00	0.00	417.12	63.99	259.25	57.01	50.56	0.00
140	554.49	408.58	8.80	60.00	0.00	0.00	819.20	57.25	12.72	0.00	0.00	0.00
141	554.50	321.02	56.66	4.00	0.00	20.00	812.00	61.25	77.62	0.00	20.00	0.00
142	0.00	0.00	0.00	0.00	0.00	0.00	0.00	276.50	967.74	0.00	0.00	276.50
143	668.44	12.92	40.32	0.00	98.74	0.00	166.31	0.00	1,088.00	134.40	14.72	0.00
144	0.00	0.00	0.00	589.72	139.49	33.28	266.24	18.01	124.97	66.56	6.86	0.00
145	554.50	0.00	554.50	145.92	87.55	0.00	58.37	204.29	116.74	87.55	29.18	0.00
146	0.00	0.00	0.00	0.00	72.80	200.00	0.00	79.80	153.08	0.00	0.00	1,537.30
147	635.90	0.00	101.74	0.00	203.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
148	55.18	217.89	0.00	45.76	16.19	140.80	633.60	193.60	52.80	105.60	17.60	51.39
149	0.00	479.62	51.66	173.60	647.71	0.00	0.00	229.60	185.61	85.76	97.38	786.87
150	0.00	0.00	0.00	573.08	147.77	66.56	133.12	99.84	91.69	66.56	0.00	0.00
151	0.00	341.25	436.80	110.20	0.00	80.00	695.20	264.00	0.00	80.00	0.00	0.00
152	0.00	0.00	229.63	102.30	1,359.38	259.63	183.45	460.00	0.00	0.00	367.63	696.93
153	0.00	0.00	0.00	515.84	0.00	66.56	116.48	33.28	133.12	53.94	117.06	0.00
154	483.03	0.00	483.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	50.69	351.38	14.08	0.00	70.40	35.20	161.92	228.80	281.60	140.80	75.20	33.79
156	0.00	234.45	87.14	0.00	0.00	0.00	970.18	530.40	0.00	0.00	0.00	0.00
157	483.83	175.10	379.40	87.55	58.37	0.00	87.55	87.55	87.55	58.37	94.85	0.00

BIBLIOTECA

PRODUCTO	Ene-01	Feb-01	Mar-01	Abr-01	May-01	Jun-01	Jul-01	Ago-01	Sep-01	Oct-01	Nov-01	Dic-01
158	0.00	7.84	0.00	0.00	153.44	0.00	224.00	0.00	270.14	1,083.98	14.72	0.00
159	554.50	408.58	0.00	80.00	0.00	0.00	151.20	121.25	77.82	0.00	20.00	29.18
160	0.00	0.00	0.00	65.38	160.00	400.00	0.00	959.20	0.00	0.00	0.00	0.00
161	0.00	0.00	0.00	0.00	0.00	0.00	547.20	831.36	0.00	0.00	0.00	0.00
162	0.00	0.00	436.89	153.95	204.29	58.37	58.37	87.55	58.37	138.62	145.92	0.00
163	48.00	141.92	740.57	391.84	18.88	0.00	101.60	77.76	105.10	59.20	0.00	0.00
164	554.50	175.10	262.66	116.74	58.37	0.00	0.00	58.37	145.92	58.37	29.18	0.00
165	28.80	440.00	291.84	116.74	58.37	58.37	58.37	87.55	58.37	0.00	102.14	0.00
166	110.88	325.29	230.00	145.60	305.24	115.01	196.90	540.34	156.54	985.86	16.80	200.04
167	0.00	217.14	0.00	148.80	857.68	0.00	0.00	229.60	160.38	272.00	210.40	100.75
168	532.61	182.40	262.92	145.92	58.37	0.00	29.18	58.37	29.18	58.37	29.18	0.00
169	430.46	182.40	321.02	29.18	58.37	0.00	36.48	58.37	175.10	58.37	0.00	0.00
170	0.00	0.00	0.00	382.08	66.56	0.00	83.20	0.00	49.92	65.90	133.70	0.00
171	496.13	182.40	262.66	87.55	58.37	0.00	29.18	58.37	58.37	58.37	29.18	0.00
172	0.00	483.40	731.20	401.93	145.60	0.00	920.00	182.54	172.56	0.00	43.40	22.40
173	0.00	0.00	423.20	260.00	100.00	60.00	295.20	160.00	5.10	100.00	40.00	0.00
174	0.00	0.00	0.00	0.00	0.00	0.00	70.12	93.10	709.19	62.40	0.00	353.68
175	586.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
176	0.00	322.94	276.80	280.00	0.00	80.00	292.80	21.25	40.00	80.00	0.00	0.00
177	0.00	0.00	0.00	0.00	940.00	0.00	105.60	259.66	302.03	0.00	0.00	0.00
178	0.00	832.32	32.64	40.80	0.00	0.00	81.60	0.00	0.00	0.00	0.00	0.00
179	67.20	231.20	313.60	100.00	60.00	20.00	180.00	196.00	45.10	100.00	0.00	0.00
180	0.00	0.00	989.92	140.79	0.00	97.10	290.69	266.80	32.46	265.52	424.11	167.63
181	0.00	0.00	0.00	0.00	0.00	0.00	711.43	0.00	0.00	0.00	0.00	0.00
182	21.20	0.00	414.30	279.68	10.58	0.00	73.60	12.94	44.16	0.00	14.72	0.00
183	426.77	0.00	0.00	253.23	0.00	0.00	0.00	304.00	165.90	212.03	0.00	56.80
184	0.00	0.00	69.00	403.40	9.50	10.94	0.00	0.00	639.72	554.25	93.80	93.75
185	0.00	30.10	0.00	400.00	0.00	0.00	72.12	0.00	53.20	157.66	351.65	0.00
186	280.02	0.00	0.00	397.80	0.00	0.00	0.00	0.00	0.00	576.00	0.00	1.73
187	0.00	0.00	0.00	0.00	611.72	0.00	0.00	53.20	0.00	0.00	105.76	556.38
188	412.80	268.86	684.18	0.00	0.00	10.64	0.00	0.00	25.58	0.00	0.00	21.84
189	87.55	175.10	262.66	87.55	58.37	0.00	29.18	58.37	87.55	58.37	72.96	0.00
190	55.18	91.17	4.93	35.20	123.20	35.20	140.80	35.20	123.20	105.60	17.60	51.39
191	0.00	249.65	232.00	249.65	0.00	0.00	0.00	0.00	0.00	277.60	14.72	348.20
192	57.60	168.80	279.20	20.00	40.00	20.00	140.00	120.00	35.28	120.00	0.00	0.00
193	90.32	31.08	107.40	80.36	0.00	10.76	165.17	72.07	0.00	1,436.12	19.62	0.00
194	241.52	0.00	241.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
195	0.00	10.89	0.00	118.05	443.71	0.00	0.00	146.52	0.00	272.00	19.84	240.00
196	352.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
197	0.00	0.00	1,827.84	205.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PRODUCTO	Ene-01	Feb-01	Mar-01	Abr-01	May-01	Jun-01	Jul-01	Ago-01	Sep-01	Oct-01	Nov-01	Dic-01
198	0.00	78.40	0.00	0.00	0.00	0.00	26.63	173.89	124.80	334.18	0.00	0.00
199	0.00	0.00	69.00	245.60	57.49	126.14	846.72	0.00	0.00	0.00	0.00	0.00
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	42.76	0.00	384.01	0.00
201	62.71	475.94	145.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202	0.00	126.72	14.08	0.00	17.60	17.60	73.92	105.60	70.40	70.40	17.60	0.00
203	681.36	0.00	40.32	0.00	10.54	0.00	0.00	0.00	0.00	33.60	0.00	0.00
204	0.00	61.90	69.00	43.40	0.00	88.42	460.00	324.80	94.86	155.57	98.00	0.00
205	0.00	47.40	86.40	35.55	0.00	0.00	0.00	0.00	0.00	0.00	71.10	0.00
206	0.00	25.90	0.00	0.00	0.00	0.00	0.00	0.00	633.60	43.27	0.00	0.00
207	0.00	291.84	62.26	0.00	0.00	0.00	0.00	21.25	5.10	0.00	0.00	0.00
208	0.00	130.67	168.46	0.00	0.00	102.73	0.00	24.48	43.40	8.68	106.40	294.20
209	251.49	138.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
210	0.00	0.00	19.20	180.80	80.00	0.00	0.00	0.00	0.00	40.00	0.00	0.00
211	0.00	0.00	0.00	45.80	0.00	0.00	91.60	0.00	0.00	0.00	0.00	45.80
212	0.00	0.00	0.00	0.00	253.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
213	0.00	30.10	0.00	0.00	288.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
214	0.00	51.10	60.95	0.00	0.00	21.70	362.04	79.18	0.00	0.00	0.00	8.24
215	0.00	0.00	0.00	46.40	0.00	37.32	56.61	11.14	0.00	0.00	0.00	0.00
216	0.00	25.90	0.00	0.00	57.60	0.00	86.80	159.28	13.15	43.14	0.00	0.00
217	0.00	0.00	0.00	0.00	0.00	0.00	40.00	0.00	0.00	0.00	0.00	38.40
218	0.00	17.92	52.26	239.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
219	0.00	0.00	0.00	33.60	17.68	0.00	0.00	14.80	0.00	0.00	0.00	0.00
220	35.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
221	0.00	29.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
222	57.39	23.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
223	0.00	7.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

VENTAS EN UNIDADES AÑO 2002

PRODUCTO	Ene-02	Feb-02	Mar-02	Abr-02	May-02	Jun-02	Jul-02	Ago-02	Sep-02	Oct-02	Nov-02	Dic-02
1	359,232	215,100	585,144	682,080	549,912	345,732	367,632	707,677	713,304	223,560	231,180	411,264
2	595,068	635,306	585,360	597,240	976,748	740,179	206,400	467,243	901,624	900,924	502,625	341,728
3	60,732	110,099	140,316	76,260	116,832	925	61,164	9,026	71,976	47,520	43,740	31,008
4	87,040	84,200	72,320	71,919	93,354	43,300	63,810	89,100	28,430	78,544	56,014	30,310
5	0	17,740	2,924	2,265	2,194	46,668	5,349	96,301	1,281	575	374	169
6	74,232	36,803	15,214	50,458	132,086	49,695	38,053	21,199	32,684	80,994	44,084	13,812
7	0	1,250	16,010	2,666	8,457	3,799	6,123	3,666	11,663	15,410	33,493	16,109
8	12,568	13,960	35,640	8,960	4,920	240	4,440	0	0	0	0	0
9	3,120	1,680	4,920	4,464	6,600	1,380	0	19,440	14,160	2,400	6,600	6,360
10	384	102,628	7,284	18,200	16,810	9,040	31,120	57,548	11,284	2,700	1,700	100
11	500	11,952	2,306	1,665	1,984	498	500	5,184	9,163	9,166	18,920	11,007
12	22,272	20,484	21,096	9,156	11,052	7,788	12,048	21,907	9,997	4,802	60	0
13	6,804	10,368	15,960	15,900	9,000	10,068	9,576	19,656	14,148	8,928	780	1,512
14	22,464	80,052	106,464	45,936	27,384	31,440	150,096	259,224	71,112	13,284	2,580	0
15	3,584	1,965	11,011	4,972	15,843	6,586	15,708	11,137	21,037	18,001	20,143	22,456
16	4,416	7,896	13,176	12,264	10,188	6,360	4,104	18,156	14,897	6,816	1,512	1,212
17	46,475	78,420	103,740	88,344	50,064	40,068	44,280	54,648	27,216	19,896	12,192	6,528
18	56,400	48,000	31,200	166,150	163,000	148,500	48,000	91,600	92,400	83,200	48,200	30,000
19	0	0	667	667	16,250	250	1,122	1,660	5,666	916	17,040	133
20	43,235	77,450	46,495	52,260	67,670	38,340	70,080	39,420	971,658	60,670	72,632	73,160
21	7,164	17,355	4,629	12,324	7,380	0	12,462	11,198	16,794	13,560	14,544	16,056
22	3,045	4,848	9,816	10,272	6,336	24	4,392	12,168	12,888	4,172	0	144
23	3,516	6,480	13,248	7,272	5,616	6,456	8,052	14,940	10,992	2,256	348	2,328
24	1,800	47,796	44,424	27,672	14,484	19,944	72,588	27,648	37,932	6,156	12,096	12,000
25	5,184	20,682	25,671	20,787	19,323	10,308	27,493	15,972	3,531	10,077	0	225
26	2,880	9,878	11,733	12,372	12,712	2,386	8,600	11,577	2,677	500	442	444
27	3,288	9,384	18,456	7,620	12,744	4,644	3,588	0	10,008	3,528	4,176	3,480
28	2,880	4,176	9,360	6,120	4,248	4,320	7,320	10,308	9,804	0	348	2,208
29	2,800	1,400	17,400	5,000	0	9,960	5,400	11,950	1,800	12,000	5,600	400
30	6,048	0	6,048	4,968	2,232	3,168	7,884	4,752	6,336	1,416	0	1,788
31	3,024	3,084	6,984	5,616	3,804	576	3,828	8,352	6,264	0	324	1,356

PRODUCTO	Ene-02	Feb-02	Mar-02	Abr-02	May-02	Jun-02	Jul-02	Ago-02	Sep-02	Oct-02	Nov-02	Dic-02
32	0	133,056	30,912	31,104	25,920	0	98,496	131,604	22,224	0	5,184	0
33	3,748	5,093	3,495	5,155	14,848	4,080	4,359	4,719	5,675	5,914	3,342	3,780
34	1,215	3,785	4,776	3,504	1,296	1,200	3,732	5,976	6,120	1,612	0	144
35	2,597	3,521	5,253	4,465	7,061	3,167	8,242	4,606	11,860	10,188	4,208	5,052
36	4,032	0	4,032	3,600	2,016	1,108	6,948	4,032	5,256	2,052	0	4,824
37	5,760	9,684	4,248	0	0	0	0	12,504	0	0	552	0
38	2,364	16,629	16,308	12,600	8,640	5,616	3,240	11,016	10,584	2,160	2,592	3,960
39	283	370	402	994	0	859	1,450	830	640	560	560	318
40	4,536	12,528	16,902	13,392	3,888	5,544	3,240	6,048	14,256	2,376	4,320	1,548
41	3,024	1,488	5,868	6,300	1,584	0	7,344	2,016	144	1,968	2,400	1,476
42	3,456	8,736	3,912	0	0	0	0	11,892	0	0	264	0
43	2,916	0	34,002	3,875	159	5,418	0	2,749	2,050	0	0	0
44	6,144	2,736	9,660	5,328	7,488	1,656	7,056	2,592	3,840	2,832	2,688	0
45	0	0	15,768	6,768	4,752	1,872	20,880	33,840	25,488	5,040	504	0
46	3,024	0	3,024	3,228	2,519	1,872	3,636	3,168	4,032	1,200	0	3,732
47	6,156	0	2,734	2,646	1,719	799	1,257	5,003	0	348	791	2,016
48	3,564	7,494	7,872	7,448	3,024	600	1,536	1,232	4,416	5,128	2,452	4,632
49	1,824	2,784	3,696	4,099	1,560	336	1,344	2,352	1,104	0	0	0
50	0	0	3,750	1,284	1,109	1,083	1,988	1,000	2,247	1,234	4,216	22,256
51	2,664	7,092	2,832	0	0	0	0	7,176	0	0	288	0
52	1,584	2,208	1,104	1,008	504	1,944	5,424	4,440	0	936	792	3,780
53	0	0	0	3,240	11,400	432	1,512	504	552	540	787	6,768
54	3,564	7,770	1,972	6,200	2,510	356	984	1,136	3,980	3,784	2,468	4,272
55	2,544	10,584	7,992	10,800	6,480	0	2,592	6,480	6,696	432	2,808	1,296
56	3,564	4,524	0	5,504	3,548	96	5,400	1,668	120	5,848	3,744	1,202
57	250	500	2,687	3,240	4,037	1,248	2,700	1,849	4,711	722	246	2,259
58	962	170	4,912	7,380	796	432	2,916	3,672	0	0	4,536	0
59	216	9,081	2,658	4,839	4,326	2,655	10,650	15,828	1,725	2,175	1,113	750
60	9,180	10,620	12,420	4,470	3,240	1,080	5,100	8,460	4,680	1,440	900	0
61	0	0	3,564	10,000	0	648	500	1,997	1,500	1,736	869	7,387
62	10,632	2,952	4,404	2,592	1,140	5,616	1,404	4,920	2,088	1,692	1,248	324
63	3,024	0	3,024	1,008	864	216	2,772	1,872	1,728	1,584	0	1,068

PRODUCTO	Ene-02	Feb-02	Mar-02	Abr-02	May-02	Jun-02	Jul-02	Ago-02	Sep-02	Oct-02	Nov-02	Dic-02
64	125	12,211	4,065	0	5,333	50	6,920	167	2,350	5,236	6,997	11,315
65	2,999	4,084	12,456	16,487	13,748	2,999	20,163	6,295	5,075	0	0	0
66	1,440	1,296	3,240	2,376	936	0	1,548	3,540	2,592	0	72	48
67	375	275	11,125	5,123	20,991	1,553	2,702	30,850	13,994	1,888	25,655	5,612
68	2,592	0	27,168	2,016	1,728	2,400	8,688	12,612	18,243	600	0	0
69	1,996	3,456	9,504	2,256	2,088	432	1,008	1,488	1,224	576	288	0
70	1,812	3,456	8,568	2,688	1,584	288	1,296	1,944	964	720	144	144
71	150	0	0	922	0	693	270	1,461	0	588	1,170	46
72	294	576	1,224	324	612	1,152	1,152	1,080	388	168	126	0
73	0	0	0	4,608	2,160	576	2,016	0	1,080	468	947	3,744
74	1,152	2,136	480	792	288	1,944	2,472	3,791	0	708	288	900
75	7,380	9,000	6,840	6,420	1,080	1,440	3,780	8,100	3,960	720	720	0
76	11,160	12,240	2,460	0	0	0	0	10,650	7,380	2,880	900	1,260
77	636	1,788	6,404	4,080	1,440	144	2,448	1,728	1,008	0	503	0
78	0	49	0	0	499	0	900	1,292	755	200	1,547	2,136
79	120	200	4,617	355	625	364	1,010	986	275	300	172	72
80	1,344	2,376	7,776	8,136	2,076	1,728	2,304	7,128	2,460	0	144	0
81	0	576	4,824	1,584	504	479	504	0	0	0	0	1,008
82	0	0	0	0	1,448	494	500	1,500	8,395	3,887	3,569	2,281
83	1,644	2,808	8,208	6,840	2,580	1,512	3,624	4,968	216	0	144	0
84	0	0	1,000	7,485	0	250	3,515	1,499	4,442	50	498	1,284
85	6,652	0	0	0	16,386	0	0	12,984	0	994	0	830
86	492	300	900	0	216	600	471	12,105	336	600	150	216
87	0	0	4,765	2,000	500	250	3,665	10,916	6,540	3,999	997	3,571
88	6,504	2,196	2,700	1,728	720	3,768	0	3,456	2,028	568	1,140	252
89	0	0	0	1,167	1,000	240	2,000	0	6,653	3,683	2,706	0
90	500	0	1,250	7,631	0	0	0	0	0	0	0	0
91	912	816	2,208	1,728	336	336	241	96	0	0	192	0
92	720	1,344	312	144	288	360	2,712	1,488	1,056	399	180	636
93	768	1,584	4,032	1,536	1,872	288	720	1,152	864	144	144	1,008
94	1,404	1,392	1,440	0	0	0	0	3,516	0	0	144	0
95	2,316	1,728	6,048	5,184	1,728	1,296	1,968	2,808	0	0	72	0

PRODUCTO	Ene-02	Feb-02	Mar-02	Abr-02	May-02	Jun-02	Jul-02	Ago-02	Sep-02	Oct-02	Nov-02	Dic-02
96	5,010	0	1,150	0	5,144	1,497	0	1,998	2,500	11,250	100	17,413
97	0	344	83	0	3,308	2,541	0	9,733	249	4,759	3,099	3,960
98	4,985	800	0	0	0	0	0	964	2,364	302	250	590
99	5,040	0	5,040	0	0	0	0	0	0	0	0	0
100	125	500	3,000	0	0	0	1,998	2,976	12,441	1,949	2,975	84
101	3,936	1,716	1,722	1,188	504	1,968	1,044	2,508	1,560	636	924	36
102	204	624	4,100	1,776	1,296	144	1,296	504	576	0	287	0
103	132	395	886	587	150	500	1,325	450	312	462	275	200
104	474	825	603	750	800	900	1,150	350	450	1,025	350	600
105	0	0	500	0	1,497	0	0	2,050	542	3,840	750	2,386
106	3,600	0	4,031	0	3,168	0	0	0	0	0	0	0
107	0	0	0	0	328	50	4,992	500	0	500	100	16,289
108	2,880	2,112	2,160	792	288	1,800	336	2,388	1,200	924	828	36
109	192	324	344	245	121	200	175	6,336	100	125	2,131	72
110	912	225	1,248	672	480	96	384	336	240	144	96	48
111	144	1,152	3,180	1,488	1,008	0	1,152	432	432	0	432	0
112	0	0	0	1,265	399	997	444	600	0	700	0	350
113	150	223	494	398	114	250	197	125	62	200	150	50
114	0	0	0	500	250	3,000	6,000	120	1,000	7,640	1,965	0
115	96	573	1,286	823	345	0	150	740	412	272	0	0
116	0	0	0	250	4,727	1,100	10,655	2,000	1,108	0	0	0
117	3,600	0	3,600	0	0	0	0	0	0	0	0	0
118	0	0	0	1,000	250	0	0	0	1,333	330	5,168	9,526
119	288	864	24	288	0	144	1,116	300	840	144	144	1,356
120	2,618	0	0	5,900	0	0	0	0	0	0	0	0
121	936	384	816	432	288	0	432	528	384	192	144	0
122	0	0	0	0	0	0	8,100	9,072	0	0	432	0
123	78	526	1,248	624	384	96	336	192	96	0	96	0
124	0	0	3,015	3,150	7,125	813	0	0	0	0	0	0
125	0	0	0	300	0	1,100	800	0	200	0	1,050	750
126	83	0	0	5,000	0	48	1,619	167	456	4,677	3,241	0
127	0	1,749	1,260	57	0	0	1,800	360	0	0	0	0

PRODUCTO	Ene-02	Feb-02	Mar-02	Abr-02	May-02	Jun-02	Jul-02	Ago-02	Sep-02	Oct-02	Nov-02	Dic-02
128	0	0	5,500	1,836	0	0	0	0	1,041	1,978	0	0
129	0	995	500	0	750	0	0	1,000	2,325	4,311	250	1,000
130	0	100	925	0	145	0	2,508	0	14,308	250	350	4,739
131	0	250	0	0	0	0	330	2,483	0	3,349	0	2,878
132	235	0	250	0	3,690	0	976	0	0	745	768	0
133	0	3,732	244	700	3,188	0	250	3,440	1,000	6,061	1,125	1,620
134	336	119	971	809	347	225	136	46	100	150	25	0
135	3,600	0	1,152	0	1,152	0	0	720	0	0	0	0
136	0	0	0	2,473	0	0	0	0	1,739	740	250	1,616
137	492	145	1,063	459	369	75	199	73	175	125	0	0
138	0	0	16,000	1,589	248	0	729	2,349	1,763	500	6,797	276
139	144	466	751	0	0	0	825	125	512	112	100	0
140	912	672	11	75	0	0	1,024	70	15	0	0	0
141	912	528	71	4	0	25	1,015	75	96	0	25	0
142	0	0	0	0	0	0	0	1,008	3,528	0	0	1,008
143	4,915	95	300	0	661	0	984	0	10,000	1,000	100	0
144	0	0	0	886	208	50	400	27	187	100	10	0
145	912	0	912	240	144	0	96	336	192	144	48	0
146	0	0	0	0	250	500	0	250	497	0	0	4,101
147	3,600	0	576	0	1,152	0	0	0	0	0	0	0
148	78	308	0	65	23	200	900	275	75	150	25	73
149	0	2,729	299	700	4,687	0	0	950	1,666	661	721	4,271
150	0	0	0	861	222	100	200	150	137	100	0	0
151	0	414	546	137	0	100	869	330	0	100	0	0
152	0	0	1,248	750	10,828	1,398	997	2,500	0	0	1,998	4,440
153	0	0	0	775	0	100	175	50	200	81	335	0
154	2,016	0	2,016	0	0	0	0	0	0	0	0	0
155	72	498	20	0	100	50	230	325	400	200	100	48
156	0	739	247	0	0	0	3,331	2,125	0	0	0	0
157	804	288	624	144	96	0	144	144	144	96	156	0
158	0	49	0	0	1,334	0	2,000	0	2,010	9,963	100	0
159	912	672	0	100	0	0	189	150	96	0	25	48

PRODUCTO	Ene-02	Feb-02	Mar-02	Abr-02	May-02	Jun-02	Jul-02	Ago-02	Sep-02	Oct-02	Nov-02	Dic-02
160	0	0	0	227	1,000	2,500	0	5,995	0	0	0	0
161	0	0	0	0	0	0	2,850	4,330	0	0	0	0
162	0	0	720	144	336	96	96	144	96	228	240	0
163	60	180	955	501	25	0	127	100	131	74	0	0
164	912	288	432	192	96	0	0	96	240	96	48	0
165	60	550	480	192	96	96	96	144	96	0	168	0
166	495	1,993	1,250	1,000	1,692	599	1,064	2,995	1,063	6,610	100	1,255
167	0	1,675	0	600	5,176	0	0	950	895	2,000	1,375	433
168	876	300	432	240	96	0	48	96	48	96	48	0
169	708	300	528	48	96	0	60	96	288	96	0	0
170	0	0	0	574	100	0	125	0	75	99	360	0
171	816	300	432	144	96	0	48	96	96	96	48	0
172	0	2,820	4,500	2,287	1,000	0	5,000	973	994	0	250	125
173	0	0	529	325	125	75	369	200	6	125	50	0
174	0	0	0	0	0	0	249	373	2,589	250	0	1,417
175	6,312	0	0	0	0	0	0	0	0	0	0	0
176	0	408	346	350	0	100	366	25	50	100	0	0
177	0	0	0	0	2,500	0	300	749	1,118	0	0	0
178	0	2,400	80	100	0	0	200	0	0	0	0	0
179	84	289	392	125	75	25	225	245	56	125	0	0
180	0	0	8,000	967	0	510	1,216	150	187	1,164	2,264	955
181	0	0	0	0	0	0	1,249	0	0	0	0	0
182	36	0	777	475	18	0	125	22	75	0	25	0
183	3,138	0	0	1,862	0	0	0	2,500	997	1,530	0	355
184	0	0	500	2,750	66	63	0	0	6,102	4,345	666	557
185	0	125	0	2,500	0	0	243	0	333	1,004	2,260	0
186	2,059	0	0	2,925	0	0	0	0	0	5,000	0	15
187	0	0	0	0	3,097	0	0	250	0	0	497	2,410
188	2,000	1,416	2,543	0	0	50	0	0	99	0	0	100
189	144	288	432	144	96	0	48	96	144	96	120	0
190	78	128	7	50	175	50	200	50	175	150	25	73
191	0	1,486	1,875	1,486	0	0	0	0	0	2,000	100	2,312

PRODUCTO	Ene-02	Feb-02	Mar-02	Abr-02	May-02	Jun-02	Jul-02	Ago-02	Sep-02	Oct-02	Nov-02	Dic-02
192	72	211	349	25	50	25	175	150	43	150	0	0
193	882	150	750	350	0	62	666	495	0	8,721	113	0
194	1,008	0	1,008	0	0	0	0	0	0	0	0	0
195	0	63	0	476	3,187	0	0	615	0	2,000	124	1,000
196	3,828	0	0	0	0	0	0	0	0	0	0	0
197	0	0	9,150	1,413	0	0	0	0	0	0	0	0
198	0	250	0	0	0	0	82	494	500	1,499	0	0
199	0	0	500	2,000	499	1,063	5,880	0	0	0	0	0
200	0	0	0	0	0	0	0	0	96	0	1,300	0
201	78	599	240	0	0	0	0	0	0	0	0	0
202	0	180	20	0	25	25	105	150	100	100	25	0
203	5,010	0	300	0	62	0	0	0	0	250	0	0
204	0	450	500	250	0	473	2,500	1,750	487	1,066	600	0
205	0	192	732	144	0	0	0	0	0	0	288	0
206	0	125	0	0	0	0	0	0	6,082	332	0	0
207	0	480	78	0	0	0	0	25	6	0	0	0
208	0	1,251	1,188	0	0	624	0	141	250	50	600	1,782
209	1,747	1,489	0	0	0	0	0	0	0	0	0	0
210	0	0	24	226	100	0	0	0	0	50	0	0
211	0	0	0	100	0	0	200	0	0	0	0	100
212	0	0	0	0	737	0	0	0	0	0	0	0
213	0	125	0	0	1,200	0	0	0	0	0	0	0
214	0	499	312	0	0	125	1,650	352	0	0	0	46
215	0	0	0	250	0	194	305	48	0	0	0	0
216	0	125	0	0	500	0	500	998	137	331	0	0
217	0	0	0	0	0	0	50	0	0	0	0	48
218	0	150	369	999	0	0	0	0	0	0	0	0
219	0	0	0	50	25	0	0	25	0	0	0	0
220	144	0	0	0	0	0	0	0	0	0	0	0
221	0	96	0	0	0	0	0	0	0	0	0	0
222	244	225	0	0	0	0	0	0	0	0	0	0
223	0	12	0	0	0	0	0	0	0	0	0	0

VENTAS EN DOLARES 2002

PRODUCTO	Ene-02	Feb-02	Mar-02	Abr-02	May-02	Jun-02	Jul-02	Ago-02	Sep-02	Oct-02	Nov-02	Dic-02
1	36,715.52	21,893.66	59,615.80	66,731.88	51,366.85	33,044.78	35,026.47	65,885.36	63,199.22	21,014.63	22,285.20	35,971.82
2	87,075.63	83,768.24	81,262.73	84,403.77	101,171.22	100,211.49	31,422.97	64,291.10	129,769.93	131,170.21	73,423.26	49,971.16
3	43,039.16	58,817.31	79,767.46	52,966.17	80,972.09	877.27	42,376.08	7,673.33	50,008.35	33,054.14	30,364.57	21,533.45
4	26,591.34	26,900.37	22,764.00	23,317.37	30,327.30	13,891.96	20,802.95	26,943.46	9,052.07	25,218.27	16,943.93	9,107.10
5	0.00	15,025.47	2,655.05	2,161.23	1,862.27	32,387.05	4,662.52	66,601.61	1,113.77	555.44	371.32	169.00
6	25,981.20	11,905.73	4,855.07	16,308.54	35,509.15	13,886.71	9,830.74	5,997.49	8,498.58	20,858.53	11,127.08	3,649.57
7	0.00	350.00	3,757.51	615.48	166.13	742.96	1,241.50	850.63	2,772.35	3,525.14	6,868.58	3,480.98
8	3,199.02	3,539.98	8,921.24	2,268.05	775.21	64.80	1,037.09	0.00	0.00	0.00	0.00	0.00
9	842.40	423.70	1,232.99	122.56	1,573.23	519.55	0.00	4,601.06	23,304.98	583.23	1,555.29	799.30
10	61.10	12,265.56	960.68	2,292.66	2,054.44	122.98	3,874.62	6,845.81	1,420.49	394.55	250.13	16.79
11	0.00	3,282.00	717.22	431.27	456.32	135.63	136.00	1,337.54	2,201.75	1,930.52	3,181.77	2,179.58
12	10,375.19	9,479.50	9,836.00	4,271.73	5,160.42	3,631.62	5,572.42	10,195.58	4,706.90	2,250.14	32.89	0.00
13	2,894.25	4,453.46	6,802.50	6,777.02	3,836.92	4,285.12	4,074.42	8,351.54	6,047.75	3,820.60	328.87	681.55
14	1,900.85	7,012.64	8,479.22	3,700.89	2,129.81	2,313.81	10,974.84	17,809.02	5,319.09	884.87	208.13	0.00
15	1,892.71	959.97	5,493.52	3,145.73	10,252.48	3,705.25	10,401.18	4,994.06	12,211.29	9,789.11	11,322.42	13,375.09
16	1,885.34	3,390.20	5,617.79	5,222.89	4,345.19	2,720.79	1,750.31	7,718.72	6,370.89	2,923.79	639.70	528.23
17	6,469.31	10,159.87	13,231.43	11,295.80	6,446.54	5,095.95	5,177.07	562.50	3,262.44	2,393.67	1,466.25	845.97
18	3,073.56	2,600.88	1,701.58	8,955.39	8,742.78	7,967.17	2,647.44	5,045.53	4,989.43	4,473.74	2,642.59	1,671.36
19	0.00	0.00	150.58	186.76	3,563.00	63.00	383.92	415.00	1,282.03	187.52	3,471.75	30.43
20	6,794.54	11,635.88	6,543.71	8,217.81	9,542.05	5,572.72	9,816.70	6,087.85	139,816.46	9,259.57	10,784.01	10,986.47
21	1,934.28	4,685.85	1,249.63	3,463.71	2,089.48	0.00	3,505.01	3,107.46	4,558.43	3,641.00	3,922.26	4,360.67
22	1,303.17	2,087.45	4,189.35	4,384.26	2,695.52	10.19	1,870.05	5,171.94	5,498.05	1,772.39	0.00	66.24
23	1,304.52	2,414.79	4,890.37	2,711.64	2,091.34	2,410.22	3,100.97	5,561.37	4,129.19	841.80	130.34	876.11
24	226.16	5,212.20	3,973.32	3,183.68	1,375.02	2,066.52	5,711.21	1,612.80	4,464.42	781.20	1,209.68	804.00
25	1,244.16	4,499.91	5,484.60	4,311.38	4,082.70	2,166.25	6,102.59	3,471.56	766.62	276.49	0.00	54.00
26	1,209.60	3,843.62	1,398.41	4,662.61	4,760.91	919.41	3,557.88	4,658.31	1,031.32	219.10	188.34	193.18
27	1,939.92	5,324.22	10,315.73	4,248.07	6,089.15	2,548.86	1,954.13	0.00	5,457.18	1,954.12	2,293.97	1,315.62
28	1,067.94	1,564.00	34,611.11	2,273.00	1,572.93	1,630.38	2,814.32	3,851.04	3,686.10	0.00	150.50	827.37
29	1,204.00	602.00	7,258.78	2,150.00	0.00	4,277.64	2,296.20	4,788.50	774.00	5,160.00	2,236.05	172.00
30	1,808.35	0.00	1,808.35	2,117.14	948.19	1,345.19	2,399.95	1,235.52	2,655.26	615.93	0.00	761.32
31	1,129.87	1,149.43	2,585.71	2,078.05	1,413.41	221.54	1,416.02	3,080.12	2,312.90	0.00	120.74	506.96
32	0.00	7,850.00	1,933.93	1,585.21	1,512.03	0.00	4,254.48	5,463.33	963.61	0.00	212.54	0.00
33	1,233.36	1,668.26	1,157.10	1,693.60	3,774.59	1,339.10	1,436.98	1,548.08	1,715.40	1,951.18	1,109.34	1,244.66
34	521.01	1,872.98	1,998.29	1,494.68	550.32	514.65	1,592.35	2,537.56	2,598.71	884.50	0.00	66.24
35	806.18	1,221.89	1,898.47	1,933.28	2,318.83	939.78	3,072.23	1,589.06	3,210.87	3,197.44	1,240.20	1,666.72
36	1,205.57	0.00	1,205.57	1,598.81	856.01	467.93	1,992.86	1,048.32	2,196.66	886.00	0.00	1,734.52
37	2,445.82	4,527.63	1,804.72	0.00	0.00	0.00	0.00	5,618.07	0.00	0.00	1,325.19	0.00
38	354.78	2,348.28	2,270.77	1,785.43	1,212.13	782.60	458.71	1,541.24	1,481.25	309.28	364.11	551.64

PRODUCTO	Ene-02	Feb-02	Mar-02	Abr-02	May-02	Jun-02	Jul-02	Ago-02	Sep-02	Oct-02	Nov-02	Dic-02
39	531.76	778.44	845.07	2,090.80	0.00	1,805.50	3,046.48	1,577.60	1,337.38	1,146.08	1,136.16	632.94
40	680.70	1,750.09	2,235.68	1,895.43	538.68	772.63	468.80	852.84	1,984.70	339.19	603.43	217.67
41	1,547.48	781.86	2,843.59	3,088.94	792.03	0.00	3,485.02	950.46	79.20	924.91	1,179.12	684.02
42	1,472.58	4,123.39	1,661.97	0.00	0.00	0.00	0.00	5,365.56	0.00	0.00	1,202.40	0.00
43	895.51	0.00	13,542.99	1,752.03	67.79	2,098.68	0.00	1,094.23	985.20	0.00	0.00	0.00
44	2,211.84	984.96	3,447.58	1,916.52	2,695.68	596.16	2,540.16	475.63	1,382.40	1,019.52	967.66	0.00
45	0.00	0.00	1,806.45	760.34	518.42	207.37	2,179.86	3,469.44	2,629.61	518.43	51.84	0.00
46	904.18	0.00	904.18	1,381.71	1,069.57	794.89	1,138.83	823.68	1,652.44	509.55	0.00	1,481.33
47	3,521.86	0.00	2,555.28	2,176.16	1,292.11	742.69	1,042.24	2,434.77	0.00	295.80	585.53	826.56
48	1,150.20	2,516.87	2,657.79	2,478.91	934.15	190.02	531.82	431.71	1,549.30	1,798.56	860.77	1,625.93
49	1,366.92	2,088.00	2,770.92	2,846.15	1,008.06	216.01	864.06	1,512.10	720.04	0.00	0.00	0.00
50	0.00	0.00	1,503.00	445.48	528.59	568.29	787.50	336.00	804.89	436.37	1,452.02	7,306.70
51	1,131.19	3,347.25	1,203.38	0.00	0.00	0.00	0.00	3,183.94	0.00	0.00	596.66	0.00
52	589.28	915.99	419.45	381.05	190.53	730.58	2,130.71	1,740.27	0.00	407.28	360.76	1,436.16
53	0.00	0.00	0.00	1,702.83	5,210.64	203.67	761.37	237.62	260.25	254.59	293.27	2,102.93
54	1,150.20	2,568.86	2,388.25	2,082.98	745.21	118.63	338.31	398.35	1,396.70	1,327.61	866.08	1,499.83
55	381.78	1,485.96	1,120.14	1,550.97	908.06	0.00	368.87	912.60	942.62	64.80	398.99	179.46
56	1,150.20	1,468.86	0.00	1,872.84	1,104.78	26.96	1,863.07	584.90	42.12	2,051.81	1,314.00	424.04
57	143.50	273.00	921.11	1,256.99	1,401.00	418.46	734.40	556.89	1,369.92	244.30	76.75	804.78
58	433.57	95.26	2,796.16	2,604.48	307.81	172.80	974.03	1,296.07	0.00	0.00	1,592.32	0.00
59	38.59	1,623.64	476.10	867.11	774.35	475.85	1,903.30	2,831.43	309.30	391.78	200.05	135.74
60	1,298.40	1,524.91	1,692.15	653.43	483.71	152.75	741.49	1,221.56	680.07	203.67	127.29	0.00
61	0.00	0.00	1,975.81	2,800.00	0.00	235.87	245.00	599.51	520.00	812.27	320.68	2,626.10
62	2,513.62	843.43	1,065.86	581.81	253.56	1,203.51	271.83	1,216.60	464.20	371.73	300.93	78.57
63	904.18	0.00	904.18	428.00	366.86	83.35	766.86	486.72	733.73	677.69	0.00	455.60
64	27.03	3,189.56	890.39	0.00	1,610.72	13.30	1,784.29	42.08	622.80	1,246.69	1,432.41	2,741.52
65	483.78	587.79	2,275.56	2,500.43	2,338.52	466.31	3,918.88	1,095.09	859.50	0.00	0.00	0.00
66	536.14	478.52	1,199.80	881.71	345.58	0.00	574.90	1,303.01	957.05	0.00	26.59	19.20
67	48.00	35.20	1,699.00	1,095.80	3,415.05	385.46	736.72	4,553.45	2,581.00	474.73	4,218.63	1,361.42
68	310.18	0.00	2,901.36	270.14	194.40	321.60	1,003.20	1,582.80	2,112.20	80.40	0.00	0.00
69	557.01	1,201.44	3,303.02	781.76	715.93	148.12	345.62	518.43	427.91	197.50	115.20	0.00
70	626.52	1,201.44	2,970.06	938.11	543.12	98.75	444.37	683.01	296.25	263.33	57.60	57.60
71	269.20	0.00	0.00	1,917.26	0.00	943.27	511.00	1,969.57	0.00	817.47	1,631.52	61.82
72	280.15	567.98	1,267.29	308.18	602.21	1,101.78	1,078.62	1,020.11	308.16	211.06	151.78	0.00
73	0.00	0.00	0.00	2,460.89	1,018.35	271.56	1,034.20	0.00	509.18	220.64	467.13	1,231.41
74	434.20	889.85	178.71	299.08	106.34	730.58	971.77	1,505.23	0.00	314.24	110.76	426.91
75	1,043.81	1,291.86	971.68	933.48	169.72	203.67	543.12	1,152.29	579.75	101.84	101.84	0.00
76	1,578.45	1,754.04	340.30	0.00	0.00	0.00	0.00	1,537.33	1,071.95	407.34	127.29	178.21
77	228.96	554.85	2,037.23	1,281.26	444.37	51.84	755.43	540.65	311.06	0.00	155.17	0.00

PRODUCTO	Ene-02	Feb-02	Mar-02	Abr-02	May-02	Jun-02	Jul-02	Ago-02	Sep-02	Oct-02	Nov-02	Dic-02
78	0.00	104.86	0.00	0.00	670.66	0.00	38.02	941.68	477.16	126.40	1,032.32	1,349.95
79	123.74	207.25	4,755.45	367.20	643.80	375.15	1,041.75	1,017.30	283.55	309.20	177.16	74.30
80	229.19	403.92	1,300.95	1,383.12	352.92	293.76	391.68	1,211.76	412.20	0.00	24.48	0.00
81	0.00	518.40	3,758.61	1,296.05	388.83	363.83	388.83	0.00	0.00	0.00	0.00	777.65
82	0.00	0.00	0.00	0.00	826.05	231.69	217.00	616.00	3,419.63	1,544.03	1,317.29	789.19
83	279.48	477.36	1,390.95	1,162.80	438.60	257.04	616.08	844.56	36.72	0.00	24.48	0.00
84	0.00	0.00	504.00	2,663.71	0.00	113.75	1,219.98	526.39	2,021.67	19.95	172.42	536.81
85	1,698.06	0.00	0.00	0.00	3,919.39	0.00	0.00	3,171.20	0.00	341.37	0.00	272.02
86	187.62	116.12	343.63	0.00	82.08	229.40	182.19	4,164.44	128.99	228.80	57.20	82.37
87	0.00	0.00	1,242.86	516.00	165.00	66.50	1,049.11	1,818.33	1,872.50	1,270.73	422.37	1,067.73
88	1,577.10	668.96	641.90	387.16	158.87	813.58	0.00	814.99	455.37	109.43	277.79	63.14
89	0.00	0.00	0.00	400.07	399.00	109.20	658.00	0.00	1,915.02	1,088.07	812.04	0.00
90	440.00	0.00	732.50	4,900.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91	693.12	620.16	1,678.08	1,313.28	255.36	255.36	183.16	72.96	0.00	0.00	145.92	0.00
92	270.27	565.89	115.94	53.17	106.34	137.19	1,074.59	586.34	380.14	106.34	72.00	236.64
93	259.53	543.12	1,422.98	526.66	641.87	98.75	246.87	411.45	312.70	57.60	57.60	239.90
94	595.18	653.93	624.92	0.00	0.00	0.00	0.00	1,630.50	0.00	0.00	530.42	0.00
95	393.70	293.76	1,017.67	881.28	293.76	220.32	334.56	477.36	0.00	0.00	12.24	0.00
96	851.70	0.00	191.60	0.00	886.62	251.50	0.00	359.66	380.00	1,912.00	18.40	2,516.82
97	0.00	95.11	24.98	0.00	1,122.28	667.36	0.00	2,328.83	66.23	1,172.02	895.14	1,090.67
98	2,711.64	672.00	0.00	0.00	0.00	0.00	0.00	484.51	953.01	142.54	154.00	276.48
99	1,509.48	0.00	1,509.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100	27.03	109.94	675.00	0.00	0.00	0.00	799.20	1,004.40	3,050.86	490.13	742.93	22.93
101	950.78	508.18	409.74	261.16	111.57	427.84	235.74	587.53	347.36	151.52	213.23	16.85
102	73.44	372.78	1,530.77	548.08	399.94	51.84	399.94	155.53	177.75	0.00	88.51	0.00
103	83.90	250.96	560.61	370.90	94.50	315.40	837.53	272.45	197.48	291.96	173.35	126.00
104	217.07	379.45	276.78	344.25	367.20	413.10	527.85	159.15	204.85	470.48	160.65	275.40
105	0.00	0.00	360.00	0.00	710.94	0.00	0.00	867.00	325.20	1,408.14	357.15	911.51
106	794.88	0.00	890.27	0.00	699.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
107	0.00	0.00	0.00	0.00	116.44	13.30	1,347.84	126.00	0.00	126.00	25.90	3,866.84
108	674.82	636.06	517.28	176.50	61.72	385.74	32.23	583.04	270.22	213.24	186.57	16.82
109	95.23	159.65	163.48	122.50	59.25	99.00	87.00	2,280.86	49.80	62.10	767.02	28.22
110	639.12	220.50	944.10	510.72	364.80	72.96	291.84	255.36	182.40	109.44	72.96	36.48
111	51.84	355.50	1,013.83	459.18	311.06	0.00	355.50	133.31	133.31	0.00	133.31	0.00
112	0.00	0.00	0.00	999.35	291.73	679.94	327.75	462.20	0.00	504.40	0.00	221.20
113	210.82	306.29	671.85	550.03	171.23	403.60	291.90	178.95	88.68	316.60	214.50	71.50
114	0.00	0.00	0.00	100.00	50.00	620.00	1,440.00	21.60	247.50	1,278.08	405.98	0.00
115	96.00	564.18	1,256.32	813.22	339.40	0.00	150.00	727.40	402.92	272.00	0.00	0.00
116	0.00	0.00	0.00	66.50	981.61	220.00	2,858.40	472.50	277.00	0.00	0.00	0.00

PRODUCTO	Ene-02	Feb-02	Mar-02	Abr-02	May-02	Jun-02	Jul-02	Ago-02	Sep-02	Oct-02	Nov-02	Dic-02
117	1,078.20	0.00	1,078.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
118	0.00	0.00	0.00	240.00	50.00	0.00	0.00	0.00	291.50	65.91	1,004.31	2,120.51
119	106.33	370.14	9.60	106.34	0.00	53.17	459.01	128.52	295.94	53.17	53.16	422.65
120	822.00	0.00	0.00	2,340.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
121	711.36	291.08	620.16	328.32	218.88	0.00	328.32	401.28	291.84	145.92	109.44	0.00
122	0.00	0.00	0.00	0.00	0.00	0.00	1,398.63	1,558.47	0.00	0.00	79.92	0.00
123	78.39	518.31	944.10	474.24	291.84	72.96	255.36	145.92	72.96	0.00	72.96	0.00
124	0.00	0.00	603.45	630.00	1,425.00	162.60	0.00	0.00	0.00	0.00	0.00	0.00
125	0.00	0.00	0.00	161.25	0.00	572.00	426.50	0.00	96.00	0.00	489.26	333.26
126	17.95	0.00	0.00	1,062.50	0.00	12.77	518.08	42.08	106.36	1,026.30	736.00	0.00
127	0.00	816.20	601.44	27.21	0.00	0.00	859.20	171.60	0.00	0.00	0.00	0.00
128	0.00	0.00	1,212.50	352.51	0.00	0.00	0.00	0.00	240.02	672.52	0.00	0.00
129	0.00	222.88	116.00	0.00	178.00	0.00	0.00	224.00	530.73	941.75	62.00	195.50
130	0.00	20.00	145.40	0.00	29.78	0.00	509.42	0.00	224.38	42.00	88.40	690.67
131	0.00	98.00	0.00	0.00	0.00	0.00	189.31	875.23	0.00	1,138.66	0.00	897.94
132	183.30	0.00	127.75	0.00	1,441.74	0.00	298.60	0.00	0.00	271.74	234.03	0.00
133	0.00	648.59	62.46	217.00	554.86	0.00	54.00	704.20	192.00	1,062.08	209.00	465.82
134	244.92	84.46	709.77	587.17	248.79	159.00	97.22	30.82	70.30	103.80	15.10	0.00
135	794.88	0.00	254.36	0.00	254.36	0.00	0.00	143.28	0.00	0.00	0.00	0.00
136	0.00	0.00	0.00	1,268.65	0.00	0.00	0.00	0.00	703.26	336.70	91.00	581.17
137	360.53	104.90	777.62	334.52	269.43	55.20	144.88	53.86	125.50	87.05	0.00	0.00
138	0.00	0.00	2,474.79	405.91	62.50	0.00	222.39	443.23	360.47	155.00	1,349.11	65.18
139	91.46	283.09	475.58	0.00	0.00	0.00	521.40	79.99	324.06	71.26	63.20	0.00
140	693.11	510.72	11.00	75.00	0.00	0.00	1,024.00	71.56	15.90	0.00	0.00	0.00
141	693.12	401.28	70.82	5.00	0.00	25.00	1,015.00	76.56	97.28	0.00	25.00	0.00
142	0.00	0.00	0.00	0.00	0.00	0.00	0.00	345.62	1,209.68	0.00	0.00	345.62
143	835.55	16.15	50.40	0.00	123.42	0.00	206.64	0.00	1,360.00	168.00	18.40	0.00
144	0.00	0.00	0.00	737.15	174.36	41.60	332.80	22.51	156.21	83.20	8.32	0.00
145	693.12	0.00	693.12	182.40	109.44	0.00	72.96	255.36	145.92	109.44	36.48	0.00
146	0.00	0.00	0.00	0.00	91.00	250.00	0.00	99.75	191.35	0.00	0.00	1,921.63
147	794.88	0.00	127.18	0.00	254.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
148	68.97	272.36	0.00	57.20	20.24	176.00	792.00	242.00	66.00	132.00	22.00	64.24
149	0.00	599.53	64.58	217.00	809.64	0.00	0.00	287.00	232.01	107.20	121.72	983.59
150	0.00	0.00	0.00	716.35	184.71	83.20	166.40	124.80	114.61	83.20	0.00	0.00
151	0.00	426.56	546.00	137.75	0.00	100.00	869.00	330.00	0.00	100.00	0.00	0.00
152	0.00	0.00	287.04	127.88	1,699.23	324.54	229.31	575.00	0.00	0.00	459.54	871.16
153	0.00	0.00	0.00	644.80	0.00	83.20	145.60	41.60	166.40	67.43	146.32	0.00
154	603.79	0.00	603.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	63.36	439.23	17.60	0.00	88.00	44.00	202.40	286.00	352.00	176.00	94.00	42.24

PRODUCTO	Ene-02	Feb-02	Mar-02	Abr-02	May-02	Jun-02	Jul-02	Ago-02	Sep-02	Oct-02	Nov-02	Dic-02
156	0.00	293.06	108.93	0.00	0.00	0.00	1,212.72	663.00	0.00	0.00	0.00	0.00
157	611.04	218.88	474.25	109.44	72.96	0.00	109.44	109.44	109.44	72.96	118.56	0.00
158	0.00	9.80	0.00	0.00	191.80	0.00	280.00	0.00	337.68	1,354.97	18.40	0.00
159	693.12	510.72	0.00	100.00	0.00	0.00	189.00	151.56	97.28	0.00	25.00	36.48
160	0.00	0.00	0.00	81.72	200.00	500.00	0.00	1,199.00	0.00	0.00	0.00	0.00
161	0.00	0.00	0.00	0.00	0.00	0.00	684.00	1,039.20	0.00	0.00	0.00	0.00
162	0.00	0.00	546.11	192.44	255.36	72.96	72.96	109.44	72.96	173.28	182.40	0.00
163	60.00	177.40	925.71	489.80	23.60	0.00	127.00	97.20	131.38	74.00	0.00	0.00
164	693.12	218.88	328.32	145.92	72.96	0.00	0.00	72.96	182.40	72.96	36.48	0.00
165	36.00	550.00	364.80	145.92	72.96	72.96	72.96	109.44	72.96	0.00	127.68	0.00
166	138.60	406.61	287.50	182.00	381.55	143.76	246.13	675.43	195.67	1,232.33	21.00	250.05
167	0.00	271.42	0.00	186.00	1,072.10	0.00	0.00	287.00	200.48	340.00	263.00	125.94
168	665.76	228.00	328.65	182.40	72.96	0.00	36.48	72.96	36.48	72.96	36.48	0.00
169	538.08	228.00	401.28	36.48	72.96	0.00	45.60	72.96	218.88	72.96	0.00	0.00
170	0.00	0.00	0.00	477.57	83.20	0.00	104.00	0.00	62.40	82.37	167.12	0.00
171	620.16	228.00	328.32	109.44	72.96	0.00	36.48	72.96	72.96	72.96	36.48	0.00
172	0.00	604.25	914.00	502.41	182.00	0.00	1,150.00	228.17	215.70	0.00	54.25	28.00
173	0.00	0.00	529.00	325.00	125.00	75.00	369.00	200.00	6.38	125.00	50.00	0.00
174	0.00	0.00	0.00	0.00	0.00	0.00	87.65	116.38	886.49	78.00	0.00	442.10
175	733.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
176	0.00	403.68	346.00	350.00	0.00	100.00	366.00	26.56	50.00	100.00	0.00	0.00
177	0.00	0.00	0.00	0.00	1,175.00	0.00	132.00	324.58	377.54	0.00	0.00	0.00
178	0.00	1,040.40	40.80	51.00	0.00	0.00	102.00	0.00	0.00	0.00	0.00	0.00
179	84.00	289.00	392.00	125.00	75.00	25.00	225.00	245.00	56.38	125.00	0.00	0.00
180	0.00	0.00	1,237.40	175.99	0.00	121.38	363.36	333.50	40.58	331.90	530.14	209.54
181	0.00	0.00	0.00	0.00	0.00	0.00	889.29	0.00	0.00	0.00	0.00	0.00
182	26.50	0.00	517.87	349.60	13.22	0.00	92.00	16.18	55.20	0.00	18.40	0.00
183	533.46	0.00	0.00	316.54	0.00	0.00	0.00	380.00	207.38	265.04	0.00	71.00
184	0.00	0.00	86.25	504.25	11.88	13.67	0.00	0.00	799.65	692.81	117.25	117.19
185	0.00	37.63	0.00	500.00	0.00	0.00	90.15	0.00	66.50	197.08	439.56	0.00
186	350.03	0.00	0.00	497.25	0.00	0.00	0.00	0.00	0.00	720.00	0.00	2.16
187	0.00	0.00	0.00	0.00	764.65	0.00	0.00	66.50	0.00	0.00	132.20	695.47
188	516.00	336.07	855.23	0.00	0.00	13.30	0.00	0.00	31.98	0.00	0.00	27.30
189	109.44	218.88	328.32	109.44	72.96	0.00	36.48	72.96	109.44	72.96	91.20	0.00
190	68.97	113.96	6.16	44.00	154.00	44.00	176.00	44.00	154.00	132.00	22.00	64.24
191	0.00	312.06	290.00	312.06	0.00	0.00	0.00	0.00	0.00	347.00	18.40	435.25
192	72.00	211.00	349.00	25.00	50.00	25.00	175.00	150.00	44.10	150.00	0.00	0.00
193	112.90	38.85	134.25	100.45	0.00	13.45	206.46	90.09	0.00	1,795.15	24.52	0.00
194	301.90	0.00	301.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

BIBLIOTECA

PRODUCTO	Ene-02	Feb-02	Mar-02	Abr-02	May-02	Jun-02	Jul-02	Ago-02	Sep-02	Oct-02	Nov-02	Dic-02
195	0.00	13.61	0.00	147.56	554.64	0.00	0.00	183.15	0.00	340.00	24.80	300.00
196	440.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
197	0.00	0.00	2,284.80	256.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
198	0.00	98.00	0.00	0.00	0.00	0.00	33.29	217.36	156.00	417.73	0.00	0.00
199	0.00	0.00	86.25	307.00	71.86	157.67	1,058.40	0.00	0.00	0.00	0.00	0.00
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.45	0.00	480.01	0.00
201	78.39	594.92	182.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202	0.00	156.40	17.60	0.00	22.00	22.00	92.40	132.00	88.00	88.00	22.00	0.00
203	851.70	0.00	50.40	0.00	13.18	0.00	0.00	0.00	0.00	42.00	0.00	0.00
204	0.00	77.37	86.25	54.25	0.00	110.52	575.00	406.00	118.58	194.46	122.50	0.00
205	0.00	59.25	108.00	44.44	0.00	0.00	0.00	0.00	0.00	0.00	88.87	0.00
206	0.00	32.38	0.00	0.00	0.00	0.00	0.00	0.00	792.00	54.09	0.00	0.00
207	0.00	364.80	77.82	0.00	0.00	0.00	0.00	26.56	6.38	0.00	0.00	0.00
208	0.00	163.34	210.57	0.00	0.00	128.41	0.00	30.60	54.25	10.85	133.00	367.75
209	314.36	173.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
210	0.00	0.00	24.00	226.00	100.00	0.00	0.00	0.00	0.00	50.00	0.00	0.00
211	0.00	0.00	0.00	57.25	0.00	0.00	114.50	0.00	0.00	0.00	0.00	57.25
212	0.00	0.00	0.00	0.00	317.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
213	0.00	37.63	0.00	0.00	360.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
214	0.00	63.88	76.19	0.00	0.00	27.13	452.55	98.98	0.00	0.00	0.00	10.30
215	0.00	0.00	0.00	58.00	0.00	46.65	70.76	13.92	0.00	0.00	0.00	0.00
216	0.00	32.38	0.00	0.00	72.00	0.00	108.50	199.10	16.44	53.93	0.00	0.00
217	0.00	0.00	0.00	0.00	0.00	0.00	50.00	0.00	0.00	0.00	0.00	48.00
218	0.00	22.40	65.32	299.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
219	0.00	0.00	0.00	42.00	22.10	0.00	0.00	18.50	0.00	0.00	0.00	0.00
220	44.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
221	0.00	36.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
222	71.74	28.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
223	0.00	9.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

BIBLIOTECA CAPILLA ALFONSINA

APENDICE 5
CLASIFICACION ABC

PRODUCTO	Costo Unitario	Venta Total Unidades	Consumo Total $	Porcentaje del total	Porcentaje Acumulado	Clasificación Artículo
2	0.0579	7,450,445	431,381	16.1293%	16.13%	
1	0.0683	5,391,817	368,261	13.7693%	29.90%	
3	0.3200	769,598	246,271	9.2081%	39.11%	
4	0.1667	798,341	133,083	4.9760%	44.08%	
5	0.5000	175,840	105,504	3.9448%	48.03%	
6	0.1691	589,314	99,653	3.7260%	51.75%	
7	0.6380	118,846	75,686	2.8303%	54.58%	
8	0.7970	80,728	64,340	2.4057%	56.99%	
9	0.7970	71,124	56,686	2.1195%	59.11%	
11	0.6380	72,845	46,475	1.7377%	60.85%	
12	0.2950	140,662	41,495	1.5515%	62.40%	
13	0.3348	122,700	41,080	1.5360%	63.93%	
14	0.0427	810,036	34,589	1.2933%	65.23%	
15	0.2224	152,443	33,903	1.2676%	66.49%	
16	0.3348	100,997	33,814	1.2643%	67.76%	
17	0.0587	571,871	33,569	1.2551%	69.01%	
18	0.0304	1,006,650	30,602	1.1442%	70.16%	
19	0.6380	44,371	28,309	1.0585%	71.22%	
20	0.0379	717,112	27,179	1.0162%	72.23%	
21	0.1800	133,466	24,024	0.8983%	73.13%	
22	0.3348	68,105	22,802	0.8525%	73.98%	
23	0.2794	81,504	22,772	0.8515%	74.84%	
24	0.0651	324,540	21,128	0.7900%	75.63%	
10	0.0800	258,798	20,704	0.7741%	76.40%	
25	0.1297	159,253	20,655	0.7723%	77.17%	
26	0.2658	76,201	20,254	0.7573%	77.93%	
27	0.2452	80,916	19,841	0.7418%	78.67%	
28	0.2794	61,092	17,069	0.6382%	79.31%	
29	0.2109	73,716	15,545	0.5812%	79.89%	
30	0.2915	44,640	13,013	0.4865%	80.38%	
31	0.2794	43,212	12,073	0.4514%	80.83%	
32	0.0242	478,500	11,580	0.4330%	81.26%	
33	0.1798	64,208	11,545	0.4317%	81.69%	
34	0.3348	33,360	11,169	0.4176%	82.11%	
35	0.1574	70,220	11,053	0.4133%	82.52%	
36	0.2915	37,900	11,048	0.4131%	82.94%	
37	0.3358	32,748	11,023	0.4121%	83.35%	
38	0.1103	95,709	10,557	0.3947%	83.74%	
39	1.4495	7,266	10,533	0.3938%	84.14%	
40	0.1103	88,578	9,770	0.3653%	84.50%	
41	0.2905	33,612	9,704	0.3651%	84.87%	
42	0.3366	28,260	9,512	0.3557%	85.22%	
43	0.1824	51,169	9,333	0.3490%	85.57%	
44	0.1609	52,020	8,838	0.3305%	85.90%	
45	0.0767	114,912	8,814	0.3295%	86.23%	
46	0.2915	29,435	8,580	0.3208%	86.55%	
47	0.3621	23,469	8,498	0.3177%	86.87%	

PRODUCTO	Costo Unitario	Venta Total Unidades	Consumo Total $	Porcentaje del total	Porcentaje Acumulado	Clasificación Artículo
48	0.1700	49,398	8,398	0.3140%	87.19%	[illegible]
49	0.4127	19,099	7,901	0.2954%	87.48%	[illegible]
50	0.1824	40,167	7,325	0.2739%	87.75%	[illegible]
51	0.3366	20,052	6,750	0.2524%	88.01%	[illegible]
52	0.2844	23,724	6,747	0.2523%	88.26%	[illegible]
53	0.2601	25,735	6,694	0.2503%	88.51%	[illegible]
54	0.1700	38,996	6,629	0.2479%	88.76%	[illegible]
55	0.1103	58,704	6,475	0.2421%	89.00%	[illegible]
56	0.1787	35,218	6,293	0.2353%	89.23%	[illegible]
57	0.2532	24,449	6,190	0.2315%	89.47%	[illegible]
58	0.2272	25,776	5,856	0.2190%	89.69%	[illegible]
59	0.1000	56,016	5,002	0.2094%	89.89%	[illegible]
60	0.0850	61,590	5,235	0.1957%	90.09%	[illegible]
61	0.1824	28,201	5,144	0.1923%	90.28%	[illegible]
62	0.1300	39,012	5,072	0.1896%	90.47%	[illegible]
63	0.2915	17,160	5,002	0.1870%	90.66%	[illegible]
64	0.0902	54,769	4,940	0.1847%	90.84%	[illegible]
65	0.0575	84,306	4,848	0.1813%	91.03%	[illegible]
66	0.2794	17,088	4,774	0.1785%	91.20%	[illegible]
67	0.0395	120,143	4,746	0.1774%	91.36%	[illegible]
68	0.0623	76,047	4,738	0.1771%	91.56%	[illegible]
69	0.1904	24,316	4,630	0.1731%	91.73%	[illegible]
70	0.1904	23,608	4,495	0.1681%	91.90%	[illegible]
71	0.6422	5,300	4,464	0.1669%	92.07%	[illegible]
72	0.6145	7,098	4,360	0.1630%	92.23%	[illegible]
73	0.2720	15,599	4,252	0.1590%	92.39%	[illegible]
74	0.2844	14,951	4,252	0.1590%	92.55%	[illegible]
75	0.0850	49,440	4,202	0.1571%	92.70%	[illegible]
76	0.0850	46,930	4,159	0.1555%	92.86%	[illegible]
77	0.2080	20,179	4,157	0.1554%	93.02%	[illegible]
78	0.5541	7,378	4,088	0.1529%	93.17%	[illegible]
79	0.4491	9,098	4,085	0.1527%	93.32%	[illegible]
80	0.1145	35,472	4,062	0.1519%	93.47%	[illegible]
81	0.4244	9,479	4,023	0.1504%	93.62%	[illegible]
82	0.1809	22,074	3,993	0.1493%	93.77%	[illegible]
83	0.1145	32,544	3,726	0.1393%	93.91%	[illegible]
84	0.1824	20,023	3,652	0.1366%	94.05%	[illegible]
85	0.0902	37,846	3,414	0.1276%	94.18%	[illegible]
86	0.2069	16,385	3,390	0.1268%	94.30%	[illegible]
87	0.0902	37,203	3,356	0.1255%	94.43%	[illegible]
88	0.1300	25,060	3,258	0.1218%	94.55%	[illegible]
89	0.1824	17,449	3,183	0.1190%	94.67%	[illegible]
90	0.3262	9,381	3,079	0.1151%	94.78%	[illegible]
91	0.4245	6,865	2,914	0.1090%	94.89%	[illegible]
92	0.2844	9,639	2,741	0.1025%	95.00%	[illegible]
93	0.1904	14,112	2,687	0.1005%	95.10%	[illegible]
94	0.3366	7,898	2,658	0.0994%	95.20%	[illegible]
95	0.1145	23,148	2,650	0.0991%	95.29%	[illegible]
96	0.0575	46,062	2,649	0.0990%	95.39%	[illegible]
97	0.0902	28,076	2,532	0.0947%	95.49%	[illegible]

PRODUCTO	Costo Unitario	Venta Total Unidades	Consumo Total $	Porcentaje del total	Porcentaje Acumulado	Clasificación Articulo
98	0.2440	10,255	2,502	0.0936%	95.59%	
99	0.2254	10,060	2,379	0.0890%	95.67%	
100	0.0902	26,048	2,350	0.0879%	95.76%	
101	0.1300	17,742	2,306	0.0862%	95.84%	
102	0.2060	10,807	2,226	0.0832%	95.93%	
103	0.3750	5,674	2,128	0.0796%	96.01%	
104	0.2556	8,277	2,116	0.0791%	96.09%	
105	0.1824	11,595	2,109	0.0789%	96.17%	
106	0.1904	10,799	2,056	0.0769%	96.24%	
107	0.0902	22,759	2,069	0.0768%	96.32%	
108	0.1300	15,744	2,047	0.0765%	96.40%	
109	0.1936	10,385	2,009	0.0751%	96.47%	
110	0.4034	4,881	1,969	0.0736%	96.54%	
111	0.2060	9,420	1,941	0.0726%	96.62%	
112	0.4006	4,755	1,905	0.0712%	96.69%	
113	0.7842	2,413	1,892	0.0708%	96.76%	
114	0.0902	20,475	1,847	0.0691%	96.83%	
115	0.3920	4,697	1,844	0.0689%	96.90%	
116	0.0902	19,840	1,790	0.0669%	96.96%	
117	0.2354	7,200	1,695	0.0634%	97.03%	
118	0.0902	17,607	1,588	0.0594%	97.09%	
119	0.2844	5,508	1,566	0.0586%	97.15%	
120	0.1824	8,518	1,554	0.0581%	97.20%	
121	0.3393	4,536	1,539	0.0575%	97.26%	
122	0.0983	17,604	1,519	0.0568%	97.32%	
123	0.4034	3,676	1,483	0.0554%	97.37%	
124	0.1940	14,193	1,407	0.0526%	97.43%	
125	0.3348	4,200	1,406	0.0526%	97.48%	
126	0.0902	15,291	1,379	0.0516%	97.53%	
127	0.2617	5,226	1,368	0.0511%	97.58%	
128	0.1507	10,355	1,353	0.0506%	97.63%	
129	0.1206	11,131	1,342	0.0502%	97.68%	
130	0.0575	23,325	1,341	0.0501%	97.73%	
131	0.1420	9,290	1,319	0.0493%	97.78%	
132	0.1971	6,664	1,313	0.0491%	97.83%	
133	0.0595	21,360	1,271	0.0475%	97.88%	
134	0.3878	3,284	1,268	0.0474%	97.93%	
135	0.1004	6,824	1,261	0.0472%	97.97%	
136	0.1824	6,818	1,244	0.0465%	98.02%	
137	0.3878	3,176	1,231	0.0460%	98.07%	
138	0.0995	30,251	1,195	0.0447%	98.11%	
139	0.3750	3,035	1,138	0.0426%	98.15%	
140	0.4034	2,779	1,121	0.0419%	98.20%	
141	0.4034	2,751	1,110	0.0415%	98.24%	
142	0.1947	5,544	1,079	0.0404%	98.28%	
143	0.0575	18,055	1,038	0.0388%	98.32%	
144	0.5541	1,868	1,035	0.0387%	98.36%	
145	0.3393	3,024	1,026	0.0384%	98.39%	
146	0.1824	5,598	1,021	0.0382%	98.43%	
147	0.1904	5,328	1,014	0.0379%	98.47%	

PRODUCTO	Costo Unitario	Venta Total Unidades	Consumo Total $	Porcentaje del total	Porcentaje Acumulado	Clasificación Artículo
148	0.4615	2,172	1,002	0.0375%	99.89%	
149	0.0595	16,684	993	0.0371%	99.54%	
150	0.5541	1,770	981	0.0367%	99.58%	
151	0.3926	2,496	980	0.0366%	99.62%	
152	0.0395	24,159	954	0.0357%	99.65%	
153	0.5541	1,716	951	0.0356%	99.69%	
154	0.2364	4,062	949	0.0355%	99.72%	
155	0.4615	2,043	943	0.0353%	99.76%	
156	0.1420	6,442	915	0.0342%	99.79%	
157	0.3393	2,640	896	0.0335%	99.83%	
158	0.0575	15,456	889	0.0332%	99.86%	
159	0.4034	2,192	884	0.0331%	99.89%	
160	0.0902	9,722	877	0.0328%	99.93%	
161	0.1216	7,180	873	0.0326%	99.96%	
162	0.4034	2,180	847	0.0317%	99.99%	
163	0.3926	2,153	845	0.0316%	100.02%	
164	0.3393	2,400	814	0.0304%	100.05%	
165	0.4034	1,978	798	0.0298%	100.08%	
166	0.0395	20,116	795	0.0297%	100.11%	
167	0.0595	13,104	780	0.0292%	100.14%	
168	0.3393	2,295	774	0.0289%	100.17%	
169	0.3393	2,220	753	0.0282%	100.20%	
170	0.5541	1,333	739	0.0276%	100.23%	
171	0.3393	2,172	737	0.0276%	100.25%	
172	0.0395	17,940	709	0.0265%	100.28%	
173	0.3926	1,804	708	0.0265%	100.31%	
174	0.1420	4,970	706	0.0264%	100.33%	
175	0.1085	6,512	691	0.0258%	100.36%	
176	0.3926	1,745	685	0.0256%	100.38%	
177	0.1420	4,667	663	0.0248%	100.41%	
178	0.2364	2,780	654	0.0245%	100.43%	
179	0.3926	1,641	644	0.0241%	100.46%	
180	0.0395	16,413	599	0.0224%	100.48%	
181	0.4822	1,249	602	0.0225%	100.50%	
182	0.3678	1,559	602	0.0225%	100.53%	
183	0.0575	10,392	597	0.0223%	100.55%	
184	0.0395	15,040	594	0.0222%	100.57%	
185	0.0902	6,485	585	0.0219%	100.59%	
186	0.0575	9,555	575	0.0215%	100.61%	
187	0.0902	6,254	564	0.0211%	100.63%	
188	0.0902	6,208	560	0.0209%	100.65%	
189	0.3393	1,609	546	0.0204%	100.66%	
190	0.4615	1,161	536	0.0200%	100.70%	
191	0.0575	9,259	532	0.0199%	100.72%	
192	0.3926	1,250	491	0.0183%	100.73%	
193	0.0395	12,189	481	0.0180%	100.75%	
194	0.2364	2,016	475	0.0177%	100.77%	
195	0.0575	7,485	429	0.0160%	100.79%	
196	0.1085	3,929	419	0.0157%	100.80%	
197	0.0395	10,563	417	0.0156%	100.82%	

ESPOL
1958
POLITECNICA DEL LITORAL
BIBLIOTECA "GONZALO ZEVALLOS"
P.E.E.C.C.

PRODUCTO	Costo Unitario	Venta Total Unidades	Consumo Total $	Porcentaje del total	Porcentaje Acumulado	Clasificación Artículo
198	0.1420	2,825	401	0.0150%	99.83%	
199	0.0395	9,942	393	0.0147%	99.85%	
200	0.2794	1,395	390	0.0146%	99.86%	
201	0.4034	917	370	0.0138%	99.88%	
202	0.4615	730	337	0.0126%	99.89%	
203	0.0575	5,822	335	0.0124%	99.90%	
204	0.0395	8,076	319	0.0119%	99.91%	
205	0.2060	1,356	279	0.0104%	99.92%	
206	0.0395	6,599	258	0.0097%	99.93%	
207	0.4004	586	233	0.0088%	99.94%	
208	0.0395	5,886	232	0.0087%	99.95%	
209	0.0575	3,236	186	0.0070%	99.96%	
210	0.3926	400	157	0.0059%	99.96%	
211	0.3686	400	135	0.0050%	99.97%	
212	0.1924	737	134	0.0050%	99.97%	
213	0.0002	1,325	120	0.0045%	99.98%	
214	0.0395	2,984	118	0.0044%	99.98%	
215	0.1343	757	107	0.0040%	99.99%	
216	0.0395	2,591	102	0.0038%	99.99%	
217	0.9769	96	96	0.0036%	99.99%	
218	0.0395	1,518	60	0.0022%	100.00%	
219	0.5200	100	52	0.0019%	100.00%	
220	0.2015	144	30	0.0011%	100.00%	
221	0.2617	96	25	0.0009%	100.00%	
222	0.0395	486	19	0.0007%	100.00%	
223	0.3878	12	5	0.0002%	100.00%	
Total Acumulado Anu		24,253,937.00	2,674,517.11	100.00%		

APENDICE 6

PRONOSTICOS PARA ARTICULOS IMPORTADOS

CALCULOS PRONOSTICOS CON METODO PROMEDIO MOVIL

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Abr-02	380.482	605.249	993.116	811.167	6.865	42.083	8.763	20.723	3.240	38.765	4.919	21.284	11.044	69.660	5.520	8.498	76.212	15.200	222	58.727	9.710	4.903	7.748	31.340	17.170	8.164	10.378	5.472	7.200	4.032
May-02	464.105	693.919	109.893	75.146	7.643	34.164	5.642	19.660	3.685	42.224	5.505	16.612	14.076	77.454	6.843	11.112	80.166	81.783	445	58.735	11.436	8.312	9.000	33.964	22.380	11.323	11.820	6.552	7.035	3.672
Jun-02	505.112	719.745	111.158	70.198	2.461	65.915	8.044	18.697	6.325	14.098	1.985	13.768	13.620	88.928	10.099	11.676	80.716	120.117	5.861	59.478	8.111	4.806	8.712	28.660	21.027	12.972	12.540	6.576	7.467	4.416
Jul-02	525.909	721.320	81.602	69.524	17.042	77.413	4.074	4.707	4.145	14.693	1.597	8.312	11.636	34.070	9.134	9.664	69.462	159.247	5.722	52.767	6.668	5.644	8.448	20.200	16.600	9.157	8.328	4.890	4.597	3.492
Ago-02	421.692	641.109	69.049	66.821	18.070	73.275	6.128	3.200	3.660	18.990	994	10.295	9.848	69.610	12.712	8.864	44.894	119.653	5.874	53.697	6.614	3.554	6.708	35.672	19.041	7.899	6.992	5.295	5.120	4.428
Sep-02	472.690	471.214	23.705	65.403	49.439	20.318	4.829	1.602	6.840	32.669	2.061	13.914	13.100	146.029	11.144	9.510	46.332	90.013	1.011	49.280	7.887	5.228	9.510	30.060	17.624	7.521	2.744	7.318	8.101	5.538
Oct-02	596.204	533.053	42.189	62.447	34.310	30.649	7.151	1.469	11.503	33.317	4.949	14.851	14.456	169.144	16.981	12.356	42.048	77.933	2.818	61.733	13.465	9.816	11.378	45.856	15.660	7.618	4.532	9.141	6.393	6.724
Nov-02	648.294	760.597	42.841	65.359	32.718	44.969	10.248	0	12.000	23.844	7.834	12.236	14.244	114.549	10.775	13.290	33.920	69.047	2.747	58.897	13.651	9.745	9.398	53.812	9.860	4.918	2.412	6.704	8.561	4.168
Dic-02	569.346	709.391	54.412	54.329	743	62.567	20.169	0	7.729	6.228	12.416	4.953	7.912	28.932	19.727	7.742	19.768	74.650	7.874	59.567	14.958	5.537	4.839	16.728	4.536	1.536	5.564	3.381	6.467	2.564

CALCULOS PRONOSTICOS CON METODO SUAVIZACION EXPONENCIAL α = 0.1

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	359.232	665.068	60.732	87.040	0	74.233	0	12.668	3.120	384	500	22.272	6.804	32.464	3.564	4.416	46.475	56.400	0	43.235	7.164	3.045	3.516	1.800	5.164	2.880	3.288	2.880	2.800	6.048
Mar-02	348.819	699.092	63.669	85.766	1.774	70.489	125	12.707	2.975	10.601	1.645	22.093	7.160	28.223	3.428	4.764	49.020	58.560	0	44.697	8.153	3.225	3.812	6.400	6.734	3.680	3.998	3.010	2.660	6.443
Abr-02	368.851	697.719	73.133	85.312	1.683	64.962	1.714	15.000	3.170	10.276	1.711	21.893	8.040	35.047	4.161	5.005	55.077	53.124	67	49.840	7.878	3.884	4.750	10.202	8.628	4.208	5.353	3.645	4.134	5.504
May-02	400.174	697.071	73.446	83.973	1.837	63.811	1.800	14.938	3.350	11.090	1.707	20.710	8.836	37.035	4.265	5.271	57.569	74.234	1.799	49.249	8.188	4.704	5.068	12.203	10.791	5.945	6.296	3.928	3.799	5.128
Jun-02	416.148	699.578	77.788	84.911	1.953	70.369	2.474	13.449	3.630	11.943	1.782	19.746	8.554	38.071	5.418	6.053	59.418	81.706	1.800	48.158	7.369	4.239	5.207	12.977	10.745	5.869	6.131	3.967	4.416	4.913
Jul-02	408.806	648.039	70.099	80.750	6.425	69.301	2.606	12.128	3.403	11.582	1.611	18.545	8.008	37.005	5.535	6.832	60.816	81.706	1.649	50.350	7.876	4.253	5.462	16.935	12.418	5.690	5.877	4.502	4.513	5.237
Ago-02	404.149	607.076	69.209	79.056	6.317	65.277	2.604	13.358	3.064	10.356	1.553	17.690	7.727	47.055	6.552	6.365	54.648	78.335	1.649	48.287	8.210	5.044	6.436	19.809	12.273	6.489	5.889	4.003	5.257	5.180
Sep-02	434.862	569.592	63.187	80.060	15.316	60.869	3.029	10.223	4.702	17.776	1.668	19.229	10.069	68.273	7.011	7.257	54.664	79.661	1.655	48.297	8.210	5.044	6.436	19.809	12.273	6.489	5.889	4.003	5.257	5.180
Oct-02	463.382	619.895	64.066	74.897	13.912	64.050	3.662	9.201	5.644	17.176	2.668	17.469	10.406	68.567	8.413	8.291	51.919	80.938	1.966	51.902	9.069	5.828	6.892	21.621	11.849	6.081	5.781	5.293	4.911	5.736
Nov-02	438.606	647.558	62.412	75.282	12.978	60.345	3.644	8.281	5.323	15.684	3.264	16.302	10.339	63.032	9.372	8.144	46.717	81.183	1.881	52.778	9.816	5.962	6.428	20.076	11.672	5.822	6.538	4.654	5.020	4.958
Dic-02	417.765	633.660	59.564	73.357	11.994	58.719	3.669	7.453	5.451	14.289	4.021	14.668	9.383	58.093	10.449	7.481	45.064	77.866	3.379	54.764	10.039	5.006	5.820	19.227	10.505	5.614	5.402	4.403	5.618	4.417

CALCULOS PRONOSTICOS CON METODO SUAVIZACION EXPONENCIAL α = 0.4

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	359.232	665.068	60.732	87.040	0	74.233	0	12.668	3.120	384	500	22.272	6.804	32.464	3.564	4.416	46.475	56.400	0	43.235	7.164	3.045	3.516	1.800	5.164	2.880	3.288	2.880	2.800	6.048
Mar-02	501.679	811.163	89.479	85.904	7.096	69.259	500	13.129	3.844	41.262	8.081	21.557	8.230	45.468	2.938	5.808	59.253	63.040	0	68.821	11.249	3.768	4.702	20.168	11.383	6.078	5.728	3.356	3.060	5.629
Abr-02	416.903	699.642	101.414	80.470	6.427	61.642	5.704	22.131	3.494	27.653	3.971	21.372	11.322	69.686	6.165	8.765	77.048	44.304	267	62.761	9.990	6.160	6.120	23.869	17.090	8.101	10.618	5.783	4.184	4.557
May-02	521.835	699.451	92.153	77.090	5.162	45.198	9.089	16.863	3.882	23.890	3.049	19.466	13.153	80.334	5.669	10.159	81.566	83.042	427	63.884	10.087	7.620	7.781	29.002	19.674	9.909	9.630	5.916	4.721	4.715
Jun-02	633.060	759.360	102.624	83.972	3.375	79.035	6.436	12.099	4.969	21.056	2.623	14.312	11.492	47.131	9.750	10.170	66.065	121.025	0.756	54.601	9.054	7.237	6.916	23.185	18.873	10.870	10.821	6.250	3.729	3.740
Jul-02	458.132	719.278	81.844	67.463	20.692	67.819	6.381	7.347	3.634	16.251	1.773	11.703	10.923	40.853	8.485	8.846	57.486	132.015	4.154	50.490	8.423	4.548	6.731	21.894	15.447	7.537	8.350	4.678	4.415	3.511
Ago-02	421.932	639.365	61.832	65.002	14.655	55.973	8.678	8.184	3.120	22.190	1.264	11.641	10.344	64.053	14.374	8.829	52.186	87.409	2.961	54.370	8.220	4.364	7.260	24.172	20.256	7.963	6.445	5.355	4.813	5.260
Sep-02	536.230	608.652	60.590	75.241	47.283	42.034	4.873	3.711	9.048	30.333	3.832	19.567	14.093	154.432	11.279	11.300	53.153	69.685	2.429	59.799	9.419	7.695	10.352	33.383	18.648	9.408	3.697	7.636	5.287	5.037
Oct-02	607.060	663.705	53.164	59.517	29.864	38.294	7.559	2.228	11.093	28.317	5.364	19.519	14.115	121.059	16.182	12.775	42.778	54.371	3.724	63.160	12.304	9.647	10.606	30.992	19.541	9.716	6.324	8.503	4.011	5.569
Nov-02	493.860	709.553	60.498	65.328	17.849	55.374	10.717	1.336	7.618	19.870	8.695	19.032	12.040	77.872	16.310	10.391	33.025	69.903	2.691	69.716	12.844	7.457	7.260	24.897	11.556	5.229	5.205	6.102	5.620	3.955
Dic-02	364.695	656.206	49.033	51.602	10.629	50.853	10.628	601	7.290	10.892	11.809	8.043	7.515	47.815	17.843	8.949	25.052	73.222	6.376	64.483	13.523	6.414	4.465	19.632	9.933	2.714	4.784	3.200	5.018	2.315

CALCULOS PRONOSTICOS CON METODO SUAVIZACION EXPONENCIAL α = 0.6

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	359.232	665.068	60.732	87.040	0	74.233	0	12.668	3.120	384	500	22.272	6.804	32.464	3.564	4.416	46.475	56.400	0	43.235	7.164	3.045	3.516	1.800	5.164	2.880	3.288	2.880	2.800	6.048
Mar-02	528.372	831.252	105.183	84.484	10.998	80.548	1.125	13.821	1.824	62.405	10.807	20.663	10.012	74.253	3.127	7.568	76.226	46.810	0	74.028	16.336	4.668	6.184	43.166	19.132	5.679	8.774	4.046	1.640	693
Abr-02	448.681	668.857	136.881	73.536	4.328	17.747	14.521	33.468	4.610	19.796	3.164	31.653	18.365	103.242	9.407	12.028	82.598	152.881	600	61.869	11.072	10.178	7.709	29.335	21.210	9.508	8.607	6.391	6.061	5.022
May-02	668.830	938.511	82.114	72.081	2.461	47.197	3.852	11.410	4.478	12.982	1.814	19.386	15.847	91.627	6.407	12.028	82.598	152.881	600	61.869	11.072	10.178	7.709	29.335	21.210	9.508	8.607	6.391	6.061	5.022
Jun-02	661.864	938.724	112.380	91.227	2.221	133.596	7.696	9.663	5.268	18.920	1.987	10.681	9.655	39.812	14.676	10.399	84.017	161.961	16.691	58.099	7.809	6.720	6.834	19.965	19.812	10.970	12.335	4.463	606	2.911
Jul-02	387.359	789.274	72.171	46.093	42.233	67.082	4.319	773	1.881	9.978	845	14.107	10.000	31.277	7.408	8.764	41.483	129.648	1.684	41.116	781	594	6.394	19.647	11.224	7.637	6.413	4.334	9.025	3.102
Ago-02	397.665	791.763	66.095	62.238	8.036	39.906	8.073	4.073	189	28.891	814	11.554	9.621	138.214	14.876	8.372	43.098	58.165	1.178	51.184	11.294	4.922	7.889	27.284	25.667	7.962	3.770	7.021	5.762	7.104
Sep-02	673.670	448.605	13.189	69.414	47.515	23.015	3.593	467	17.816	54.892	4.717	20.662	18.053	247.123	11.611	15.777	83.583	89.234	1.612	42.196	11.208	11.353	14.235	31.612	16.661	9.404	377	9.979	11.331	5.017
Oct-02	709.341	806.131	86.153	34.228	9.010	31.723	10.886	41	14.495	16.615	8.716	11.065	16.598	86.713	20.084	16.045	29.653	91.990	5.291	72.350	16.235	12.736	11.316	37.300	4.674	6.710	8.049	6.492	2.763	6.284
Nov-02	573.159	698.445	49.343	74.112	1.699	70.567	14.958	4	8.618	3.993	9.121	9.430	9.465	29.667	18.209	7.643	20.692	84.079	1.350	61.838	13.628	9.028	9.162	9.870	9.657	4.229	4.099	932	11.076	1.865
Dic-02	239.276	612.007	64.904	67.674	487	47.282	31.639	1	6.301	1.625	17.610	597	1.652	4.468	19.950	2.128	13.062	51.758	16.471	71.893	14.472	503	628	11.818	856	2.714	4.166	411	5.145	190

CALCULOS PRONOSTICOS CON METODO TENDENCIA α = 0.1 β = 0.1

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	364.769	672.956	61.666	88.378	14	75.314	0	12.861	3.168	390	508	22.615	6.909	32.619	3.620	4.484	47.190	57.268	0	43.900	7.274	3.092	3.570	1.828	5.244	2.924	3.339	2.924	2.843	6.141
Mar-02	353.893	659.593	67.918	87.028	1.978	72.273	139	13.047	3.052	11.047	1.774	22.723	7.324	29.452	3.510	4.927	51.348	57.116	0	45.356	8.403	3.339	3.944	6.812	7.010	3.734	4.054	3.100	2.727	5.699
Abr-02	383.800	681.936	77.310	84.691	2.371	69.793	1.896	16.773	3.291	12.191	1.955	22.805	8.475	38.661	4.374	5.917	58.132	55.049	73	49.063	8.279	4.110	5.051	11.526	9.323	4.727	5.749	3.451	4.370	5.644
May-02	423.502	697.773	79.337	87.976	2.473	65.146	2.182	15.454	3.672	13.837	2.050	21.662	8.617	41.316	4.593	6.817	64.606	57.718	145	50.397	8.097	4.912	5.471	14.184	11.064	5.258	6.218	3.299	4.615	5.696
Jun-02	428.502	697.473	80.093	89.697	2.643	72.532	3.074	14.606	3.879	15.209	2.109	20.093	8.759	41.537	5.914	7.298	63.436	78.879	1.930	52.312	8.643	5.264	5.899	15.223	12.454	5.787	7.203	4.368	4.288	5.185
Jul-02	445.465	692.373	76.787	85.456	7.654	70.713	3.352	13.330	3.696	15.004	2.105	19.309	10.087	52.018	8.237	8.893	62.590	80.997	1.918	52.853	8.997	4.992	5.970	15.770	12.639	6.851	7.252	4.502	5.048	5.000
Ago-02	448.469	699.848	78.609	81.637	8.069	67.554	3.606	12.465	3.302	15.374	3.039	18.443	10.326	55.451	7.503	7.465	62.008	84.552	1.869	55.785	8.208	4.960	6.497	21.081	15.048	5.181	7.170	4.964	5.272	5.310
Sep-02	484.066	669.299	72.592	84.564	18.365	62.619	4.167	11.119	6.164	23.807	2.475	19.695	11.646	80.255	8.237	8.893	62.597	91.821	2.101	55.165	9.160	5.937	7.574	23.000	15.690	7.563	6.553	5.712	5.299	5.517
Oct-02	522.702	616.349	33.099	78.979	18.002	58.999	5.258	9.729	6.347	23.089	3.334	17.624	12.007	84.023	10.015	9.699	63.903	94.799	2.838	64.059	10.178	6.812	8.284	28.999	15.293	7.749	7.293	6.387	5.588	5.172
Nov-02	601.747	649.427	71.070	78.589	17.411	60.793	6.725	8.600	8.166	23.083	4.165	18.022	12.345	90.635	11.392	8.961	66.382	92.369	3.630	69.893	10.800	6.809	7.951	28.279	15.338	7.350	7.063	5.949	6.666	4.959
Dic-02	482.743	631.342	69.553	75.925	16.689	58.648	10.121	7.291	6.445	21.093	8.035	13.905	11.450	76.054	12.632	8.404	52.000	93.615	4.370	62.655	11.496	6.869	7.402	24.056	14.228	6.709	6.947	5.783	7.005	4.374

ESTA COPIA ES FIEL REPRODUCCION DEL ORIGINAL QUE TUVE A LA VISTA

CALCULOS PRONOSTICOS CON METODO TENDENCIA α = 0.1 β = 0.4

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	364.769	594.223	61.656	83.379	14	75.374	0	12.781	3.168	390	508	22.815	6.902	22.810	3.639	4.484	47.190	67.268	0	43.990	7.274	3.992	3.570	1.828	5.284	2.924	3.339	2.924	2.843	6.141
Mar-02	349.333	617.723	69.581	88.133	2.510	71.116	175	13.123	3.008	14.709	31.169	23.059	7.469	31.160	3.466	8.950	62.227	66.455	0	49.282	8.295	3.355	4.072	6.331	7.595	3.947	4.258	5.164	2.554	8.376
Abr-02	391.887	622.250	62.184	87.991	3.291	62.653	2.442	16.618	3.264	17.785	48.338	22.658	8.025	33.540	4.505	6.374	61.448	63.746	93	50.602	8.725	4.480	5.492	15.310	10.749	5.366	4.108	4.108	4.230	9.316
May-02	432.887	629.019	67.093	86.206	3.897	58.612	3.157	19.600	3.497	21.654	50.215	20.997	10.483	60.215	4.661	7.726	69.239	63.064	200	52.921	9.575	5.566	6.281	20.376	13.373	6.972	5.534	4.731	5.342	9.142
Jun-02	470.231	665.742	66.709	87.653	3.349	65.078	4.691	15.908	4.044	24.705	52.739	19.358	11.135	62.750	6.707	8.830	71.649	65.668	2.407	56.981	9.268	6.311	6.708	23.211	16.209	8.662	6.649	5.358	6.210	9.139
Jul-02	478.480	719.322	69.567	91.692	10.904	69.249	5.385	13.995	3.809	26.168	54.647	16.997	11.709	64.647	7.438	9.558	73.455	67.005	2.074	59.911	8.706	6.908	7.334	26.384	17.493	8.962	6.649	6.358	6.210	9.139
Ago-02	483.642	668.209	68.758	77.057	12.450	58.891	6.361	12.410	3.495	22.872	51.869	18.023	12.237	61.869	9.333	9.356	70.809	65.148	3.726	59.548	9.232	8.232	8.004	28.398	20.559	9.785	9.233	6.029	6.667	9.454
Sep-02	531.253	643.853	70.276	76.448	20.291	51.776	6.858	10.619	3.699	30.019	105.667	16.800	13.616	105.667	10.695	11.169	116.574	111.791	4.542	59.911	9.764	7.374	9.474	49.350	22.225	10.822	9.061	7.679	7.906	9.313
Oct-02	579.189	676.552	65.400	63.006	0	56.579	17.208	40	8.748	28.977	93.610	4.259	12.248	93.510	20.402	30.853	97.559	104.778	6.559	71.274	14.030	7.321	8.773	39.813	16.472	7.464	7.593	6.497	8.413	9.646
Nov-02	564.205	713.267	70.851	65.561	28.626	36.681	16.323	4.928	7.731	30.025	116.718	10.365	15.074	116.718	18.497	19.512	98.005	118.282	3.987	85.284	11.844	8.448	10.407	44.309	21.310	9.987	8.556	7.682	8.899	9.992
Dic-02	636.787	658.877	64.088	60.999	34.191	43.631	14.855	7.405	8.321	33.094	109.631	7.921	15.007	109.631	17.650	19.080	60.176	113.899	0.977	82.312	12.842	8.297	9.906	43.173	19.160	8.781	8.473	7.663	9.100	9.183

CALCULOS PRONOSTICOS CON METODO TENDENCIA α = 0.1 β = 0.9

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	364.769	594.223	61.656	83.379	14	75.374	0	12.781	3.168	390	508	22.815	6.902	0	3.639	4.484	47.190	67.268	0	43.990	7.274	3.992	3.570	1.828	5.284	2.924	3.339	2.924	2.843	6.141
Mar-02	341.859	619.252	71.403	89.823	2.305	73.183	2.033	18.821	2.690	22.592	7.071	0	3.979	5.200	53.639	68.926	0	50.940	9.300	3.472	4.177	10.669	6.273	3.293	4.536	3.208	3.012	5.067		
May-02	344.859	619.252	71.403	89.823	2.305	73.183	2.033	18.821	2.690	22.592	7.071	0	3.979	5.200	53.639	68.926	0	50.940	9.300	3.472	4.177	10.669	6.273	3.293	4.536	3.208	3.012	5.067		
Abr-02	350.133	624.760	60.114	86.733	5.810	58.003	3.947	17.781	3.223	20.648	3.655	22.427	9.662	327	4.731	7.091	66.506	61.624	127	53.760	9.436	4.883	6.217	21.163	13.648	6.374	7.777	4.931	5.339	4.754
May-02	451.487	628.455	68.941	83.386	9.918	48.546	4.749	18.461	3.953	33.121	4.250	19.925	12.669	289	6.369	9.169	76.947	71.163	269	56.210	10.537	6.697	7.549	29.626	17.850	8.854	9.994	6.848	6.618	4.456
Jun-02	511.292	701.020	112.064	83.416	6.588	53.439	6.025	17.312	4.336	37.409	4.664	17.995	13.161	2.441	7.072	10.919	83.411	89.576	3.331	61.993	10.892	7.677	8.499	34.543	21.617	11.667	12.028	6.152	6.431	5.672
Jul-02	575.859	748.231	103.166	74.826	15.101	54.062	8.135	14.439	4.253	37.814	4.493	13.976	14.056	4.371	9.265	11.703	82.526	122.865	4.371	61.628	9.340	7.815	8.092	38.350	23.354	11.965	12.740	6.641	7.778	5.628
Ago-02	634.056	664.647	60.980	68.166	17.010	50.648	9.226	11.312	3.958	39.816	3.976	10.278	14.355	5.013	11.020	11.468	78.712	129.647	5.013	65.733	9.538	7.626	8.272	40.851	27.016	12.736	12.483	7.201	8.266	5.346
Sep-02	687.871	638.350	78.250	65.565	33.618	42.972	9.652	7.039	6.468	45.911	5.699	9.664	16.130	8.332	13.782	13.319	74.149	130.648	8.342	63.089	9.722	8.620	11.536	53.815	28.161	13.824	10.716	8.482	9.652	5.449
Oct-02	0	659.816	0	0	0	0	0	0	0	0	0.044	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov-02	614.441	702.613	92.529	52.871	39.677	38.635	12.695	-1.702	9.644	37.026	9.270	6.366	16.540	8.781	19.850	14.565	48.490	135.348	5.783	65.496	12.725	10.005	11.602	52.180	29.760	10.374	8.797	8.659	10.119	5.636
Dic-02	650.691	683.350	98.935	48.414	39.939	37.762	18.090	-8.384	10.857	27.811	9.497	2.256	13.895	8.152	22.523	12.662	31.327	120.816	6.182	69.781	13.550	8.604	9.968	44.742	17.084	7.339	6.359	7.463	8.655	5.959

CALCULOS PRONOSTICOS CON METODO TENDENCIA α = 0.4 β = 0.1

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	364.769	594.223	61.656	83.379	14	75.374	0	12.781	3.168	390	508	22.815	6.902	22.810	3.639	4.484	47.190	67.268	0	43.990	7.274	3.992	3.570	1.828	5.284	2.924	3.339	2.924	2.843	6.141
Mar-02	304.435	627.054	83.911	87.878	2.075	59.545	650	13.468	2.561	46.381	6.521	22.030	8.535	48.952	2.859	8.623	61.056	64.958	0	53.227	11.829	4.413	4.608	22.681	15.124	6.028	6.549	3.519	3.251	3.512
Abr-02	427.468	619.107	111.601	82.205	6.393	39.638	7.403	23.473	3.855	32.714	4.586	21.871	12.615	76.151	6.483	9.357	82.132	84.497	284	69.668	9.170	9.213	9.746	33.776	18.783	8.561	11.801	6.164	8.002	4.468
May-02	580.777	618.210	101.179	78.229	5.104	42.735	6.087	16.210	4.056	28.859	3.638	16.497	14.291	99.651	8.107	11.145	88.515	87.597	465	89.674	10.763	12.620	8.092	33.832	20.803	10.958	10.750	6.484	7.778	4.618
Jun-02	571.069	783.823	111.780	85.022	4.185	60.023	7.853	12.912	6.293	25.071	3.120	13.819	13.662	93.697	10.654	11.528	76.032	130.829	7.403	82.369	9.639	10.826	7.233	27.899	21.520	12.420	12.249	9.028	4.790	3.651
Jul-02	597.850	766.816	97.344	97.407	23.129	68.853	8.470	7.392	3.791	19.803	2.124	10.696	11.955	46.180	8.024	11.023	76.712	145.699	4.561	83.089	9.613	7.535	8.772	29.851	27.018	12.739	12.483	7.061	8.206	5.346
Ago-02	649.693	691.655	64.531	64.858	17.947	55.761	9.276	11.312	3.558	39.816	1.467	10.278	14.355	83.691	11.020	11.468	74.149	130.699	3.008	63.089	9.722	8.620	11.536	53.815	28.161	13.824	10.716	8.482	9.652	5.449
Sep-02	687.871	638.350	78.250	65.565	33.618	42.972	9.652	7.039	6.468	45.911	3.070	9.664	16.130	131.654	13.782	13.319	74.149	130.699	3.008	63.089	9.722	8.620	11.536	53.815	28.161	13.824	10.716	8.482	9.652	5.449
Oct-02	0	659.816	0	0	0	0	0	0	0	0	6.687	0	0	139.576	0	0	0	0	4.323	0	0	0	0	0	0	0	0	0	0	0
Nov-02	614.441	702.613	92.529	52.871	39.677	38.635	12.695	-1.702	9.644	37.026	7.705	6.366	16.540	81.691	19.850	14.565	48.490	135.348	3.081	65.496	12.725	10.005	11.602	52.180	29.760	10.374	8.797	8.659	10.119	5.636
Dic-02	650.691	683.350	98.935	48.414	39.939	37.762	18.090	-8.384	10.857	27.811	19.145	2.256	13.895	53.651	22.523	12.662	31.327	120.816	6.364	69.781	13.550	8.604	9.968	44.742	17.084	7.339	6.359	7.463	8.655	5.959

CALCULOS PRONOSTICOS CON METODO TENDENCIA α = 0.4 β = 0.4

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	573.050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	364.769	587.200	61.656	83.379	14	75.374	0	12.781	3.168	390	508	22.815	6.902	22.810	3.639	4.484	47.190	67.268	0	43.990	7.274	3.992	3.570	1.828	5.284	2.924	3.339	2.924	2.843	6.141
Mar-02	304.435	627.054	83.911	87.878	2.075	59.545	650	13.468	2.561	46.381	6.521	22.030	8.535	48.952	2.859	8.623	61.056	64.958	0	53.227	11.829	4.413	4.608	22.681	15.124	6.028	6.549	3.519	3.251	3.512
Abr-02	427.468	619.107	111.601	82.205	6.393	39.638	7.403	23.473	3.855	32.714	4.586	21.871	12.615	76.151	6.483	9.357	82.132	84.497	284	69.668	9.170	9.213	9.746	33.776	18.783	8.561	11.801	6.164	8.002	4.468
May-02	580.777	618.210	101.179	78.229	5.104	42.735	6.087	16.210	4.056	28.859	3.638	16.497	14.291	99.651	8.107	11.145	88.515	87.597	465	89.674	10.763	12.620	8.092	33.832	20.803	10.958	10.750	6.484	7.778	4.618
Jun-02	571.069	783.823	111.780	85.022	4.185	60.023	7.853	12.912	6.293	25.071	3.120	13.819	13.662	93.697	10.654	11.528	76.032	130.829	7.403	82.369	9.639	10.826	7.233	27.899	21.520	12.420	12.249	9.028	4.790	3.651
Jul-02	597.850	766.816	97.344	97.407	23.129	68.853	8.470	7.392	3.791	19.803	2.124	10.696	11.955	46.180	8.024	11.023	76.712	145.699	4.561	83.089	9.613	7.535	8.772	29.851	27.018	12.739	12.483	7.061	8.206	5.346
Ago-02	649.693	691.655	64.531	64.858	17.947	55.761	9.276	11.312	3.558	39.816	1.467	10.278	14.355	83.691	11.020	11.468	74.149	130.699	3.008	63.089	9.722	8.620	11.536	53.815	28.161	13.824	10.716	8.482	9.652	5.449
Sep-02	687.871	638.350	78.250	65.565	33.618	42.972	9.652	7.039	6.468	45.911	3.070	9.664	16.130	131.654	13.782	13.319	74.149	130.699	3.008	63.089	9.722	8.620	11.536	53.815	28.161	13.824	10.716	8.482	9.652	5.449
Oct-02	0	659.816	0	0	0	0	0	0	0	0	6.687	0	0	139.576	0	0	0	0	4.323	0	0	0	0	0	0	0	0	0	0	0
Nov-02	614.441	702.613	92.529	52.871	39.677	38.635	12.695	-1.702	9.644	37.026	7.705	6.366	16.540	81.691	19.850	14.565	48.490	135.348	3.081	65.496	12.725	10.005	11.602	52.180	29.760	10.374	8.797	8.659	10.119	5.636
Dic-02	650.691	683.350	98.935	48.414	39.939	37.762	18.090	-8.384	10.857	27.811	19.145	2.256	13.895	53.651	22.523	12.662	31.327	120.816	6.364	69.781	13.550	8.604	9.968	44.742	17.084	7.339	6.359	7.463	8.655	5.959

CALCULOS PRONOSTICOS CON METODO TENDENCIA α = 0.4 β = 0.6

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	573.050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	364.769	587.200	61.656	83.379	14	75.374	0	12.781	3.168	390	508	22.815	6.902	22.810	3.639	4.484	47.190	67.268	0	43.990	7.274	3.992	3.570	1.828	5.284	2.924	3.339	2.924	2.843	6.141
Mar-02	304.435	627.054	83.911	87.878	2.075	59.545	650	13.468	2.561	46.381	6.521	22.030	8.535	48.952	2.859	8.623	61.056	64.958	0	53.227	11.829	4.413	4.608	22.681	15.124	6.028	6.549	3.519	3.251	3.512
Abr-02	427.468	619.107	111.601	82.205	6.393	39.638	7.403	23.473	3.855	32.714	4.586	21.871	12.615	76.151	6.483	9.357	82.132	84.497	284	69.668	9.170	9.213	9.746	33.776	18.783	8.561	11.801	6.164	8.002	4.468
May-02	580.777	618.210	101.179	78.229	5.104	42.735	6.087	16.210	4.056	28.859	3.638	16.497	14.291	99.651	8.107	11.145	88.515	87.597	465	89.674	10.763	12.620	8.092	33.832	20.803	10.958	10.750	6.484	7.778	4.618
Jun-02	571.069	783.823	111.780	85.022	4.185	60.023	7.853	12.912	6.293	25.071	3.120	13.819	13.662	93.697	10.654	11.528	76.032	130.829	7.403	82.369	9.639	10.826	7.233	27.899	21.520	12.420	12.249	9.028	4.790	3.651
Jul-02	597.850	766.816	97.344	97.407	23.129	68.853	8.470	7.392	3.791	19.803	2.124	10.696	11.955	46.180	8.024	11.023	76.712	145.699	4.561	83.089	9.613	7.535	8.772	29.851	27.018	12.739	12.483	7.061	8.206	5.346
Ago-02	649.693	691.655	64.531	64.858	17.947	55.761	9.276	11.312	3.558	39.816	1.467	10.278	14.355	83.691	11.020	11.468	74.149	130.699	3.008	63.089	9.722	8.620	11.536	53.815	28.161	13.824	10.716	8.482	9.652	5.449
Sep-02	687.871	638.350	78.250	65.565	33.618	42.972	9.652	7.039	6.468	45.911	3.070	9.664	16.130	131.654	13.782	13.319	74.149	130.699	3.008	63.089	9.722	8.620	11.536	53.815	28.161	13.824	10.716	8.482	9.652	5.449
Oct-02	0	659.816	0	0	0	0	0	0	0	0	6.687	0	0	139.576	0	0	0	0	4.323	0	0	0	0	0	0	0	0	0	0	0
Nov-02	614.441	702.613	92.529	52.871	39.677	38.635	12.695	-1.702	9.644	37.026	7.705	6.366	16.540	81.691	19.850	14.565	48.490	135.348	3.081	65.496	12.725	10.005	11.602	52.180	29.760	10.374	8.797	8.659	10.119	5.636
Dic-02	650.691	683.350	98.935	48.414	39.939	37.762	18.090	-8.384	10.857	27.811	19.145	2.256	13.895	53.651	22.523	12.662	31.327	120.816	6.364	69.781	13.550	8.604	9.968	44.742	17.084	7.339	6.359	7.463	8.655	5.959

CALCULOS PRONOSTICOS CON METODO TENDENCIA α = 0.4 β = 0.8

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	573.050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	364.769	587.200	61.656	83.379	14	75.374	0	12.781	3.168	390	508	22.815	6.902	22.810	3.639	4.484	47.190	67.268	0	43.990	7.274	3.992	3.570	1.828	5.284	2.924	3.339	2.924	2.843	6.141
Mar-02	304.435	627.054	83.911	87.878	2.075	59.545	650	13.468	2.561	46.381	6.521	22.030	8.535	48.952	2.859	8.623	61.056	64.958	0	53.227	11.829	4.413	4.608	22.681	15.124	6.028	6.549	3.519	3.251	3.512
Abr-02	427.468	619.107	111.601	82.205	6.393	39.638	7.403	23.473	3.855	32.714	4.586	21.871	12.615	76.151	6.483	9.357	82.132	84.497	284	69.668	9.170	9.213	9.746	33.776	18.783	8.561	11.801	6.164	8.002	4.468
May-02	580.777	618.210	101.179	78.229	5.104	42.735	6.087	16.210	4.056	28.859	3.638	16.497	14.291	99.651	8.107	11.145	88.515	87.597	465	89.674	10.763	12.620	8.092	33.832	20.803	10.958	10.750	6.484	7.778	4.618
Jun-02	571.069	783.823	111.780	85.022	4.185	60.023	7.853	12.912	6.293	25.071	3.120	13.819	13.662	93.697	10.654	11.528	76.032	130.829	7.403	82.369	9.639	10.826	7.233	27.899	21.520	12.420	12.249	9.028	4.790	3.651
Jul-02	597.850	766.816	97.344	97.407	23.129	68.853	8.470	7.392	3.791	19.803	2.124	10.696	11.955	46.180	8.024	11.023	76.712	145.699	4.561	83.089	9.613	7.535	8.772	29.851	27.018	12.739	12.483	7.061	8.206	5.346
Ago-02	649.693	691.655	64.531	64.858	17.947	55.761	9.276	11.312	3.558	39.816	1.467	10.278	14.355	83.691	11.020	11.468	74.149	130.699	3.008	63.089	9.722	8.620	11.536	53.815	28.161	13.824	10.716	8.482	9.652	5.449
Sep-02	687.871	638.350	78.250	65.565	33.618	42.972	9.652	7.039	6.468	45.911	3.070	9.664	16.130	131.654	13.782	13.319	74.149	130.699	3.008	63.089	9.722	8.620	11.536	53.815	28.161	13.824	10.716	8.482	9.652	5.449
Oct-02	0	659.816	0	0	0	0	0	0	0	0	6.687	0	0	139.576	0	0	0	0	4.323	0	0	0	0	0	0	0	0	0	0	0
Nov-02	614.441	702.613	92.529	52.871	39.677	38.635	12.695	-1.702	9.644	37.026	7.705	6.366	16.540	81.691	19.850	14.565	48.490	135.348	3.081	65.496	12.725	10.005	11.602	52.180	29.760	10.374	8.797	8.659	10.119	5.636
Dic-02	650.691	683.350	98.935	48.414	39.939	37.762	18.090	-8.384	10.857	27.811	19.145	2.256	13.895	53.651	22.523	12.662	31.327	120.816	6.364	69.781	13.550	8.604	9.968	44.742	17.084	7.339	6.359	7.463	8.655	5.959

CALCULOS PRONOSTICOS CON METODO TENDENCIA α = 0.4 β = 0.9

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	573.050	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	364.769	587.200	61.656	83.379	14	75.374	0	12.781	3.168	390	508	22.815	6.902	22.810	3.639	4.484	47.190	67.268	0	43.990	7.274	3.992	3.570	1.828	5.284	2.924	3.339	2.924	2.843	6.141
Mar-02	304.435	627.054	83.911	87.878	2.075	59.545	650	13.468	2.561	46.381	6.521	22.030	8.535	48.952	2.859	8.623	61.056	64.958	0	53.227	11.829	4.413	4.608	22.681	15.124	6.028	6.549	3.519	3.251	3.512
Abr-02	427.468	619.107	111.601	82.205	6.393	39.638	7.403	23.473	3.855	32.714	4.586	21.871	12.615	76.151	6.483	9.357	82.132	84.497	284	69.668	9.170	9.213	9.746	33.776	18.783	8.561	11.801	6.164	8.002	4.468
May-02	580.777	618.210	101.179	78.229	5.104	42.735	6.087	16.210	4.056	28.859	3.638	16.497	14.291	99.651	8.107	11.145	88.515	87.597	465	89.674	10.763	12.620	8.092	33.832	20.803	10.958	10.750	6.484	7.778	4.618
Jun-02	571.069	783.823	111.780	85.022	4.185	60.023	7.853	12.912	6.293	25.071	3.120	13.819	13.662	93.697	10.654	11.528	76.032	130.829	7.403	82.369	9.639	10.826	7.233	27.899	21.520	12.420	12.249	9.028	4.790	3.651
Jul-02	597.850	766.816	97.344	97.407	23.129	68.853	8.470	7.392	3.791	19.803	2.124	10.696	11.955	46.180	8.024	11.023	76.712	145.699	4.561	83.089	9.613	7.535	8.772	29.851	27.018	12.739	12.483	7.061	8.206	5.346
Ago-02	649.693	691.655	64.531	64.858	17.947	55.761	9.276	11.312	3.558	39.816	1.467	10.278	14.355	83.691	11.020	11.468	74.149

CALCULOS PRONOSTICOS CON METODO TENDENCIA α = 0.9 β = 0.1

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	364.782	604.223	81.059	88.378	14	75.374	0	12.781	3.168	390	508	22.615	6.909	22.810	3.639	4.484	47.160	57.298	0	43.900	7.274	3.092	3.670	1.828	5.264	2.924	3.339	2.924	2.643	6.141
Mar-02	222.123	641.150	110.849	85.681	12.677	38.331	1.238	14.141	1.243	101.612	11.635	20.859	10.239	19.423	3.037	7.639	76.823	48.599	0	77.700	17.364	3.677	6.805	47.364	20.609	9.853	0.374	4.295	1.468	165
Abr-02	573.571	597.650	145.312	73.416	4.600	13.116	13.975	20.730	4.802	17.436	5.430	31.244	16.331	111.469	10.606	13.499	107.017	31.411	600	60.402	5.774	9.872	13.497	48.618	27.058	12.384	18.660	9.465	17.164	5.229
May-02	705.724	601.053	84.035	21.702	2.560	46.676	4.341	11.464	4.602	18.010	1.085	9.450	16.617	84.493	6.743	13.174	84.200	163.338	727	53.111	13.130	10.916	8.257	31.782	27.723	15.211	9.145	6.784	6.470	5.044
Jun-02	585.685	929.021	110.271	92.772	3.771	120.173	8.652	4.813	6.760	17.618	2.002	10.121	9.622	29.032	18.527	10.953	64.434	173.554	16.185	69.883	7.858	7.006	6.005	16.672	20.714	13.855	13.009	4.593	319	2.230
Jul-02	368.856	780.771	6.728	46.378	48.063	57.224	4.471	4.470	1.777	9.724	544	7.041	10.208	20.653	7.774	6.578	40.320	155.291	1.807	40.681	112	358	6.000	20.370	11.454	3.291	5.444	4.416	9.508	2.928
Ago-02	366.495	230.721	64.568	50.757	9.782	37.733	6.293	3.218	-122	20.732	395	11.017	8.765	168.605	18.682	4.193	43.040	87.392	1.158	69.668	11.663	3.683	8.201	72.819	27.642	8.556	3.581	2.189	5.981	7.631
Sep-02	703.025	431.616	8.450	87.006	53.768	10.124	4.027	-600	18.945	64.031	5.027	21.553	19.678	268.649	12.152	17.475	63.258	213.828	1.614	41.558	11.036	10.096	16.171	63.693	17.619	11.810	-177	10.609	12.054	5.075
Oct-02	742.671	884.944	66.180	30.392	10.364	28.809	11.955	-1.027	18.669	18.926	9.444	19.866	15.216	93.454	21.459	18.653	27.681	83.218	5.830	24.902	17.126	13.611	11.939	39.276	4.192	8.388	9.373	10.407	2.697	6.353
Nov-02	259.146	831.065	48.282	74.077	305	77.564	16.158	-966	3.561	2.709	9.663	4.295	8.666	16.698	19.378	7.719	17.792	84.918	1.933	63.398	14.491	8.070	2.681	8.268	9.256	764	3.276	626	11.638	1.698
Dic-02	218.134	831.068	42.080	56.648	-876	46.619	34.441	-976	8.266	392	16.469	-989	816	-1.224	21.162	1.563	9.356	42.226	16.526	73.839	15.078	5	30	10.858	-127	38	-4.031	-84	6.265	-288

CALCULOS PRONOSTICOS CON METODO TENDENCIA α = 0.9 β = 0.4

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	364.782	604.223	81.059	88.378	14	75.374	0	12.781	3.168	390	508	22.615	6.909	22.810	3.639	4.484	47.160	57.298	0	43.900	7.274	3.092	3.670	1.828	5.264	2.924	3.339	2.924	2.643	6.141
Mar-02	181.715	657.542	123.639	84.453	12.393	27.917	1.876	14.469	1.341	120.216	14.616	29.373	11.972	99.281	1.555	8.851	87.255	46.466	0	88.838	20.088	6.351	7.291	59.779	24.770	11.730	11.006	4.546	1.068	-1.593
Abr-02	641.686	588.237	163.626	63.000	4.265	-832	20.213	41.770	5.363	12.383	3.150	29.855	18.693	132.135	12.914	12.597	119.564	21.764	840	48.740	4.349	11.858	15.692	57.009	31.935	14.281	22.620	11.107	21.170	6.635
May-02	789.497	595.740	79.080	68.146	1.142	48.477	3.750	8.672	8.031	12.020	880	8.978	18.225	48.974	5.753	14.954	84.010	164.948	862	51.392	12.672	12.180	9.215	31.694	23.647	13.424	8.629	7.052	6.189	5.328
Jun-02	699.051	1.076.210	120.081	95.426	1.145	155.402	9.010	376	7.485	12.561	1.323	8.629	9.660	16.370	18.458	10.765	44.109	167.631	20.429	71.356	7.076	8.800	8.065	16.654	20.296	14.128	13.323	3.952	-2.020	1.695
Jul-02	395.035	793.634	-22.664	35.080	57.500	64.155	3.465	-4.713	835	4.848	-265	5.803	9.176	22.185	7.120	6.493	28.581	167.162	721	35.092	-2.683	-2.098	6.601	10.608	8.155	978	3.378	3.839	10.428	3.784
Ago-02	317.691	70.711	47.243	67.747	7.818	27.747	5.691	1.833	-1.373	33.150	-147	11.529	8.828	179.605	17.238	2.355	38.735	33.767	-321	72.674	13.024	3.368	8.202	84.926	29.378	7.208	1.509	2.781	5.759	8.914
Sep-02	765.339	376.329	-45.418	54.062	110.111	7.883	3.173	-2.152	23.396	68.670	6.000	23.642	21.837	318.255	11.277	20.353	82.532	78.297	772	39.835	12.793	14.071	17.097	31.687	16.306	12.490	-2.450	11.774	13.516	5.218
Oct-02	706.884	685.520	73.092	10.463	143	74.937	13.108	-1.779	17.795	9.858	11.324	9.819	15.403	74.998	21.617	17.284	20.700	63.835	6.240	23.890	19.250	15.301	12.229	37.112	-705	1.428	10.046	11.011	865	6.678
Nov-02	152.615	1.016.405	49.837	76.378	-11.913	60.332	19.332	-1.101	1.199	-6.317	11.000	1.839	7.731	-29.653	20.027	8.032	10.593	79.378	602	63.764	14.959	3.619	287	-1.886	7.298	-1.973	3.561	-1.693	12.793	801
Dic-02	123.382	478.912	-61.607	55.016	-8.891	47.004	40.583	-937	8.167	-8.646	22.603	-3.803	-2.872	-33.797	21.638	-1.568	3.224	25.650	20.468	76.102	15.248	-2.613	-2.601	4.620	-3.569	-1.499	3.657	-2.054	5.640	-1.972

CALCULOS PRONOSTICOS CON METODO TENDENCIA α = 0.9 β = 0.9

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	364.782	604.223	81.059	88.378	14	75.374	0	12.781	3.168	390	508	22.615	6.909	22.810	3.639	4.484	47.160	57.298	0	43.900	7.274	3.092	3.670	1.828	5.264	2.924	3.339	2.924	2.643	6.141
Mar-02	114.303	657.753	145.421	82.972	20.339	10.563	3.137	15.564	872	179.203	28.685	19.314	12.529	121.649	632	10.312	101.398	43.289	0	101.833	24.623	6.142	8.600	69.461	24.770	13.859	13.727	5.109	416	-2.287
Abr-02	609.197	582.543	176.697	62.893	-2.169	-11.092	20.872	51.466	6.779	-29.134	1.010	29.878	21.010	142.157	16.938	17.028	131.478	19.699	1.440	51.912	-1.291	13.694	18.662	50.100	31.539	15.160	26.761	13.430	23.331	6.490
May-02	851.251	601.819	49.657	67.935	-2.421	68.176	-9.271	-3.533	9.105	-1.466	-1.535	823	17.678	12.019	3.521	13.231	83.788	266.647	871	47.463	14.071	15.146	9.150	15.599	23.647	13.916	2.866	8.127	1.062	5.041
Jun-02	469.009	1.219.086	123.314	109.391	2.826	201.384	8.716	-5.783	8.071	14.021	1.952	8.769	4.000	-5.304	21.915	8.409	17.603	201.954	27.226	74.950	5.738	3.783	8.659	11.235	20.296	13.523	13.072	1.009	-7.024	210
Jul-02	153.057	689.359	-71.313	14.641	78.426	17.623	3.849	-9.350	-1.750	4.786	-332	5.849	8.610	20.374	3.017	2.923	20.652	145.197	-5.250	22.601	-8.385	-5.250	6.241	19.155	8.155	4.911	18	3.197	14.899	2.378
Ago-02	312.649	-238.101	79.946	63.661	-10.234	5.335	6.655	0.400	-2.550	44.979	166	14.407	6.331	239.017	19.017	1.998	43.092	-31.120	-2.663	51.992	18.684	5.450	9.501	111.864	29.378	9.825	543	9.374	5.200	11.643
Sep-02	654.602	475.226	-12.024	111.691	110.050	1.781	0.574	-1.604	22.676	62.065	6.693	20.242	25.650	374.148	10.234	27.499	64.767	99.350	1.629	30.430	14.046	18.010	20.472	12.471	16.306	16.490	-3.041	13.425	15.820	7.041
Oct-02	825.331	1.252.687	164.419	-5.480	-49.233	36.794	16.711	-1.109	19.449	-12.918	13.450	4.639	15.554	-28.652	25.674	16.994	11.623	164.891	8.850	91.229	23.625	16.657	19.332	32.412	-295	-2.358	16.157	10.454	-3.078	6.931
Nov-02	-114.903	1.053.632	47.983	55.944	-19.742	119.576	20.448	-160	-7.157	-17.855	10.870	-2.444	3.720	-86.167	18.641	424	6.472	69.491	-1.009	63.009	12.707	-1.710	-5.054	-15.460	7.205	-3.776	2.519	-2.140	10.272	-1.770
Dic-02	77.993	209.922	35.465	53.466	-3.619	31.687	47.693	64	6.411	-3.329	25.705	-5.593	-0.853	-29.940	29.952	-5.173	3.657	20.355	27.190	77.677	14.269	-5.899	-3.642	7.419	-3.599	-564	2.934	-2.519	3.662	-2.448

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.9 β = 0.1 γ = 0.1

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	173.478	308.501	68.069	66.948	14.633	28.739	1.051	10.731	1.374	85.254	10.009	16.726	8.403	69.914	1.629	8.439	62.629	29.816	0	57.723	14.114	3.693	5.287	23.795	16.045	8.093	7.653	3.491	1.147	0
Mar-01	474.184	465.022	112.209	58.103	2.025	11.609	13.009	20.660	4.065	6.250	1.965	19.623	13.003	89.614	8.336	10.912	82.764	25.842	879	37.932	3.603	6.139	10.880	35.168	21.473	9.763	15.913	7.729	14.901	4.573
Abr-01	554.953	477.038	61.691	55.164	2.012	37.749	2.378	6.464	3.746	16.076	1.471	8.819	13.131	39.373	4.256	10.238	70.477	137.139	594	32.856	10.208	8.665	6.166	21.392	17.683	10.449	6.413	5.112	4.228	3.653
May-01	448.877	779.505	93.469	70.870	1.993	97.193	7.706	3.462	5.694	16.181	1.787	7.023	7.445	23.811	13.834	9.934	57.026	135.414	14.793	69.821	8.158	5.301	4.764	13.049	16.666	10.821	10.840	3.981	0	1.618
Jun-01	282.841	692.298	749	32.897	43.118	36.074	3.519	169	1.178	8.391	455	5.291	8.420	21.653	5.816	9.435	31.947	124.018	231	31.751	0	50	5.629	18.240	8.569	2.041	3.959	3.669	8.601	2.954
Jul-01	299.464	160.309	40.878	47.978	3.494	27.123	5.716	2.993	0	28.751	480	7.475	7.034	132.207	13.990	3.504	53.016	39.949	1.046	51.693	10.427	3.742	6.883	69.734	23.668	7.425	3.081	0.207	4.605	6.197
Ago-01	681.657	377.520	7.232	64.368	61.064	15.117	3.472	0	16.776	54.177	8.640	14.432	16.674	231.782	10.052	15.030	43.690	77.093	1.572	37.837	9.462	10.368	12.454	29.852	14.144	10.112	0	6.848	10.454	3.208
Sep-01	668.727	718.629	67.673	21.194	1.219	31.176	11.419	0	12.593	10.096	6.602	6.828	11.035	83.652	19.050	12.919	21.713	77.931	5.997	63.149	16.217	11.164	8.648	39.897	3.140	2.354	8.744	8.439	1.580	-4.390
Oct-01	183.869	717.090	39.078	53.162	649	67.223	16.733	0	2.980	2.629	8.832	3.117	7.553	11.064	16.349	8.922	15.673	78.249	876	53.619	11.462	3.617	1.662	5.812	6.054	441	3.089	0	10.557	978
Nov-01	100.273	400.444	39.090	41.466	358	31.111	32.665	0	5.722	1.642	17.870	30	662	2.124	16.290	1.318	9.727	45.760	10.200	60.837	12.329	0	503	11.458	0	390	3.665	256	4.830	0
Dic-01	338.418	377.232	24.846	22.457	162	9.769	18.402	0	5.611	65	10.367	0	1.230	0	20.241	1.063	5.236	29.331	127	61.068	14.606	123	2.026	11.339	201	392	3.649	1.664	302	1.269
Ene-02	364.782	604.223	81.059	88.378	14	75.374	0	12.781	3.168	390	508	18.092	7.191	23.218	4.031	4.791	48.438	53.424	0	44.898	7.503	3.297	3.820	2.119	5.781	3.179	3.603	3.059	3.071	5.198
Feb-02	220.226	656.500	103.862	77.874	27.681	37.805	1.490	11.006	1.606	121.009	13.642	16.662	10.006	89.191	2.212	8.572	77.038	60.941	0	80.100	18.228	5.229	7.091	54.923	22.892	10.818	10.206	4.475	1.579	0
Mar-02	656.351	578.845	170.521	68.818	3.129	13.483	18.775	29.895	6.262	8.812	2.656	17.721	15.235	116.068	12.237	16.132	102.739	32.571	762	48.019	4.648	10.557	14.228	51.825	25.216	12.761	19.944	9.966	18.878	6.210
Abr-02	602.169	624.833	72.991	58.449	2.630	44.705	3.000	7.503	7.464	21.092	1.607	7.579	16.648	38.508	10.072	12.508	87.284	173.809	715	51.751	12.838	10.098	7.781	31.893	22.668	13.265	8.181	6.478	5.359	4.700
May-02	655.929	580.698	110.504	88.328	2.623	117.409	9.721	4.147	8.972	16.282	2.261	9.166	8.319	39.010	17.411	10.733	80.317	168.444	19.686	63.241	7.644	6.030	5.057	10.484	20.897	13.642	13.685	3.479	0	1.845
Jun-02	328.393	750.647	913	49.112	51.166	44.261	4.321	204	1.449	10.256	560	6.519	10.375	34.078	7.178	8.092	33.198	153.345	564	39.697	0	50	6.659	22.483	11.660	2.854	4.923	3.920	10.693	2.710
Jul-02	359.706	200.830	60.720	59.826	5.896	33.657	6.657	3.268	0	34.695	553	10.097	9.752	160.273	16.605	4.206	63.119	49.814	1.750	70.974	12.714	4.607	8.278	60.444	33.197	9.016	9.761	7.253	8.007	6.899
Ago-02	702.335	497.924	8.868	83.071	197.398	19.145	4.065	0	20.197	64.095	5.715	18.712	20.097	276.927	11.694	19.918	83.845	93.484	1.858	59.902	11.453	13.858	13.581	23.889	18.629	12.185	0	10.693	12.557	5.218
Sep-02	713.917	881.184	70.764	70.698	1.414	29.700	12.662	0	14.815	12.439	10.001	8.615	14.409	75.412	22.107	10.158	20.700	64.833	6.240	76.381	17.108	13.337	11.462	31.547	1.724	9.803	10.479	10.164	1.940	3.194
Oct-02	223.074	682.209	46.712	53.764	625	74.078	16.819	0	2.468	2.947	9.913	4.165	9.000	13.933	18.031	7.023	19.612	64.203	1.060	61.010	13.762	4.296	2.358	6.578	10.229	826	3.858	0	7.467	1.796
Nov-02	239.271	482.192	-12.992	52.816	405	40.580	35.102	0	5.756	1.037	20.277	50	769	2.699	21.144	1.642	11.056	49.643	13.418	72.887	14.711	0	307	11.001	0	457	4.300	258	5.764	0
Dic-02	403.092	334.711	30.489	29.701	161	12.593	17.241	0	6.193	107	11.693	0	1.525	0	23.412	1.258	6.462	39.213	162	73.290	16.160	187	3.380	12.783	255	382	3.900	2.247	211	3.648

POLITECNICO DE CEE

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.1 γ = 0.4

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	174.095	812.033	85.235	65.653	18.057	29.601	1.007	10.625	1.331	85.257	10.146	15.710	8.439	66.260	1.642	6.472	62.634	39.188	0	0	63.271	14.253	3.670	5.712	39.994	10.064	8.069	7.671	3.418	1.162
Mar-01	477.065	410.606	112.431	66.390	8.849	11.667	14.091	20.248	4.125	6.355	2.012	15.841	13.117	60.035	9.151	10.653	62.276	55.678	569	33.218	3.636	8.155	11.024	39.332	21.495	9.783	15.343	7.762	14.547	6.533
Abr-01	557.835	478.474	61.101	55.357	2.024	37.913	2.604	6.414	3.781	16.076	1.486	6.844	13.173	36.229	4.335	10.328	70.482	137.748	600	43.172	10.288	8.084	6.120	24.476	17.760	10.463	6.423	5.150	4.249	3.641
May-01	450.852	782.809	93.603	71.660	3.002	97.549	7.776	3.426	8.035	16.181	1.802	7.503	7.605	23.007	14.013	8.651	30.920	125.930	14.910	66.123	6.194	5.327	4.778	13.970	18.679	10.674	10.864	5.602	0	3.610
Jun-01	283.065	593.419	741	32.677	43.291	35.185	3.646	168	1.185	8.308	450	5.291	8.455	37.758	5.635	9.445	31.942	124.408	293	31.893	1.052	59.043	10.471	8.749	6.890	66.859	21.000	7.457	3.084	6.220	4.678	6.515
Jul-01	300.284	183.855	48.614	47.467	4.990	27.501	9.750	2.010	0	26.781	483	7.972	7.903	137.702	14.009	3.911	35.097	90.013	1.052	59.043	10.471	8.749	6.890	66.859	21.000	7.457	3.084	6.220	4.678	6.515
Ago-01	682.883	373.385	7.238	65.470	61.285	15.146	3.480	0	10.841	64.176	3.881	14.434	16.837	257.169	10.087	19.721	43.556	77.847	1.578	32.933	9.493	10.614	12.953	25.830	14.192	10.144	0	8.652	10.476	3.313
Sep-01	687.745	719.852	87.629	21.128	1.231	23.209	11.163	0	12.589	10.029	6.632	6.526	11.967	93.046	19.114	12.938	21.711	70.035	5.414	61.285	14.253	11.105	9.857	35.720	3.141	2.359	8.749	8.449	1.683	4.035
Oct-01	154.205	718.744	36.060	60.228	650	87.231	14.771	0	2.084	2.500	9.663	3.116	7.553	11.072	16.378	6.927	16.872	70.317	878	60.729	11.613	3.629	1.966	6.817	6.866	661	3.090	0	10.969	978
Nov-01	190.418	400.736	35.097	41.475	356	31.137	33.108	0	9.239	1.621	17.864	39	661	2.358	18.324	1.318	9.737	48.736	16.329	60.769	12.343	0	203	11.442	0	190	3.651	306	4.034	0
Dic-01	338.930	372.312	24.650	22.440	102	9.782	16.415	0	6.510	93	10.376	0	1.280	0	20.397	1.054	8.206	25.930	127	61.096	13.613	133	2.027	11.342	201	392	3.649	1.905	359	1.229
Ene-02	366.135	397.767	50.789	60.181	0	65.169	0	10.644	3.320	455	574	18.109	2.159	29.076	3.972	4.758	46.450	53.648	0	60.445	18.291	5.223	7.906	55.841	22.894	10.816	10.208	4.476	1.530	0
Feb-02	220.333	630.758	109.884	77.892	21.002	32.534	1.481	11.573	2.668	121.050	13.956	16.641	10.008	89.464	2.214	8.528	77.936	60.401	0	60.445	18.291	5.223	7.906	55.841	22.894	10.816	10.208	4.476	1.530	0
Mar-02	596.427	676.912	133.536	66.612	3.423	13.452	16.783	29.027	6.595	8.517	2.667	17.245	16.692	118.084	17.522	14.134	102.738	32.978	782	48.039	4.819	10.505	14.350	51.835	28.918	15.701	19.646	9.967	16.983	5.218
Abr-02	692.111	693.754	75.568	60.429	2.632	44.664	3.006	7.478	8.418	21.662	1.907	7.829	16.845	50.559	6.508	13.071	87.234	172.836	776	81.707	12.836	10.627	7.781	31.802	22.660	13.360	8.181	6.477	6.388	4.229
May-02	655.737	940.324	115.488	55.202	2.332	117.314	9.716	4.129	10.011	19.283	2.282	9.197	9.317	29.993	17.401	10.790	49.318	168.398	18.671	69.213	7.846	6.669	5.958	15.485	29.938	13.642	13.934	4.389	0	1.819
Jun-02	346.118	728.744	918	40.035	53.089	34.353	4.317	203	2.178	10.355	553	10.659	9.748	160.248	10.874	4.264	43.152	49.789	1.255	70.614	12.701	3.658	8.374	60.412	23.134	9.835	3.763	7.552	5.664	5.694
Jul-02	308.487	809.656	84.760	69.784	8.581	32.872	6.849	3.748	0	34.688	5.703	18.715	20.037	278.814	11.076	19.965	83.450	91.428	1.647	93.603	11.460	17.643	15.873	90.205	18.966	16.104	0	10.074	12.648	4.214
Ago-02	705.780	467.573	11.856	83.018	107.309	19.159	4.908	0	32.793	64.065	9.706	19.715	20.037	276.814	11.076	19.965	83.450	91.428	1.647	93.603	11.460	17.643	15.873	90.205	18.966	16.104	0	10.074	12.648	4.214
Sep-02	712.692	682.321	70.778	26.665	1.412	29.673	12.837	0	23.826	12.435	9.887	8.838	14.491	78.591	22.358	15.428	28.701	93.878	6.239	78.294	17.085	13.329	11.393	61.624	9.723	5.691	10.428	10.101	1.679	6.691
Oct-02	222.893	681.309	45.700	73.709	627	74.008	10.785	0	4.065	2.647	9.892	4.199	8.054	13.582	18.855	7.023	19.512	84.230	958	69.564	13.743	4.293	2.327	6.074	10.557	920	3.659	0	12.451	1.279
Nov-02	230.024	491.653	43.971	52.778	404	40.553	38.114	0	11.189	1.837	20.235	63	783	2.697	21.101	1.559	11.058	48.638	18.384	72.791	14.668	0	387	12.693	0	487	4.302	355	5.778	0
Dic-02	408.877	334.159	30.466	28.678	181	12.781	17.202	0	10.738	107	11.658	0	1.821	0	23.352	1.237	8.405	30.164	142	73.149	16.164	147	2.378	12.774	233	487	3.563	2.248	411	1.837

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.1 γ = 0.9

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	176.701	817.934	83.483	67.168	19.164	29.178	1.006	10.451	1.410	85.205	10.358	19.665	8.600	60.653	1.632	5.928	62.378	39.881	0	0	64.203	14.507	4.002	5.354	40.561	17.006	8.075	7.100	3.488	1.165
Mar-01	491.955	478.537	112.720	66.773	2.574	11.765	14.407	20.882	4.197	6.239	2.065	19.998	13.193	60.758	9.006	11.038	62.746	56.997	597	34.706	3.894	8.211	11.092	15.981	21.537	9.709	15.333	7.817	14.733	4.626
Abr-01	562.727	483.604	61.238	55.682	2.043	38.168	2.450	6.333	3.817	16.077	1.512	6.836	13.233	36.798	4.418	10.398	70.442	138.798	610	43.643	10.419	8.685	6.161	24.814	17.722	10.499	6.441	5.161	4.285	3.705
May-01	464.178	788.514	93.777	71.435	3.016	98.156	7.695	3.403	8.106	16.181	1.829	7.675	7.635	24.031	14.218	8.709	30.909	126.069	14.895	66.137	6.257	5.313	4.755	13.995	18.393	9.903	10.863	5.603	0	3.671
Jun-01	285.710	595.594	742	32.813	43.564	36.372	3.602	163	1.158	8.308	464	5.297	8.469	37.664	5.672	9.412	31.933	124.263	1.061	59.403	10.647	3.762	6.918	67.067	21.021	7.429	3.089	6.241	4.700	6.528
Jul-01	301.727	184.678	48.675	47.627	3.018	27.315	5.810	2.048	0	26.782	497	7.962	8.023	137.101	14.207	3.923	35.093	90.243	1.061	59.403	10.647	3.762	6.918	67.067	21.021	7.429	3.089	6.241	4.700	6.528
Ago-01	685.176	374.812	7.243	66.644	61.085	15.193	3.617	0	10.853	64.178	4.009	14.426	16.829	257.878	10.164	19.765	43.590	77.899	1.589	33.011	9.647	10.631	12.968	25.884	14.169	10.148	0	8.656	10.517	3.323
Sep-01	692.475	721.010	87.741	21.169	1.239	23.255	11.322	0	12.581	10.033	6.682	6.552	11.953	94.035	18.228	12.982	21.709	70.335	5.443	61.616	14.315	11.168	9.876	35.783	3.143	2.355	8.757	8.460	1.687	4.034
Oct-01	154.087	720.183	36.110	60.305	651	87.393	14.837	0	2.092	2.500	9.715	3.116	7.539	11.091	16.447	6.975	16.871	70.444	881	60.864	11.647	3.629	1.997	6.829	6.850	661	3.092	0	10.931	977
Nov-01	190.084	401.212	35.098	41.508	356	31.155	33.220	0	9.243	1.621	17.915	39	661	2.361	18.374	1.317	9.726	48.783	16.370	60.893	12.357	0	203	11.492	0	190	3.653	301	4.040	0
Dic-01	338.741	372.467	24.653	22.447	102	9.784	16.439	0	6.521	93	10.390	0	1.280	0	20.424	1.054	8.206	25.955	127	61.143	13.625	128	2.025	11.347	201	392	3.650	1.906	352	1.230
Ene-02	366.739	397.892	50.699	60.066	0	64.997	0	10.726	3.231	454	580	18.109	2.165	29.023	3.979	4.724	46.469	53.424	0	60.622	18.312	5.226	7.910	55.971	22.908	10.816	10.210	4.477	1.531	0
Feb-02	220.466	631.157	109.918	77.923	21.021	32.547	1.483	11.588	2.665	121.050	13.970	16.651	10.014	89.521	2.217	8.537	77.984	60.435	0	60.622	18.312	5.226	7.910	55.971	22.908	10.816	10.210	4.477	1.531	0
Mar-02	596.076	679.009	133.533	66.616	3.431	13.463	16.797	29.050	6.597	8.517	2.663	17.245	16.700	118.114	17.510	14.137	102.737	32.943	783	48.046	4.851	10.511	14.233	51.847	28.910	15.702	19.647	9.969	16.989	5.218
Abr-02	691.970	689.613	75.584	60.412	2.636	44.676	3.003	7.483	8.417	21.662	1.907	7.829	16.844	50.553	6.507	13.070	87.233	172.815	774	81.696	12.836	10.627	7.780	31.801	22.658	13.360	8.181	6.477	6.388	4.229
May-02	655.413	939.751	115.477	55.204	2.331	117.297	9.720	4.129	10.009	19.282	2.248	9.164	9.314	29.983	17.395	10.787	49.319	168.319	18.665	69.183	7.839	6.665	5.954	15.481	29.934	13.641	13.932	4.388	0	1.819
Jun-02	345.804	728.551	918	40.065	53.036	34.299	4.310	203	2.169	10.355	552	10.650	9.737	160.113	10.865	4.259	43.122	49.737	1.252	70.513	12.680	3.657	8.363	60.356	23.128	9.834	3.762	7.551	5.663	5.678
Jul-02	308.071	809.664	84.761	69.749	8.574	33.830	6.833	3.748	0	34.688	5.691	18.720	20.070	278.837	11.065	19.947	83.317	91.373	1.643	93.493	11.447	17.641	15.859	90.146	18.961	16.091	12.193	0	10.064	12.632
Ago-02	707.765	468.664	11.861	83.031	107.161	19.183	4.907	0	32.805	64.064	9.697	19.720	20.070	276.837	11.065	19.947	83.317	91.373	1.643	93.493	11.447	17.641	15.859	90.146	18.961	16.091	12.193	0	10.064	12.632
Sep-02	711.464	683.911	70.760	26.649	1.410	29.628	12.795	0	23.804	12.439	9.857	8.831	14.457	78.396	22.301	15.411	28.702	93.782	6.229	78.165	17.067	13.316	11.384	61.565	9.714	5.686	10.419	10.091	1.676	6.685
Oct-02	222.462	681.704	45.678	73.617	626	73.968	10.775	0	4.059	2.647	9.861	4.197	8.045	13.568	18.832	7.014	19.514	84.106	956	69.534	13.708	4.289	2.324	6.070	10.553	920	3.658	0	12.431	1.275
Nov-02	229.663	492.199	43.991	52.799	403	40.582	38.077	0	11.200	1.837	20.192	63	783	2.694	21.058	1.556	11.037	48.602	18.323	72.698	14.650	0	387	12.679	0	487	4.302	355	5.776	0
Dic-02	407.864	335.706	30.446	23.640	180	12.769	17.133	0	10.644	107	11.624	0	1.822	0	23.278	1.235	8.403	30.139	142	73.076	16.128	147	2.378	12.769	233	487	3.562	2.248	411	1.834

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.4 γ = 0.1

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	173.476	808.691	85.069	69.348	14.834	28.720	1.651	10.680	1.374	85.551	10.000	16.716	8.493	66.614	1.639	6.438	62.620	39.916	0	0	62.723	14.114	3.952	5.287	33.786	16.845	8.063	7.653	3.101	1.147
Mar-01	474.076	484.614	112.260	66.189	2.824	11.818	13.902	20.341	4.060	6.280	1.985	19.614	13.063	60.541	9.329	10.946	62.766	55.833	578	34.019	3.801	8.117	10.979	28.120	21.456	9.793	15.304	7.723	14.492	4.577
Abr-01	554.697	477.030	61.021	55.260	2.004	37.868	2.597	6.409	3.740	16.014	1.464	6.832	13.113	36.253	4.291	10.269	70.282	138.668	592	42.844	10.162	8.588	6.093	24.230	17.819	10.427	6.350	5.102	4.216	3.660
May-01	448.692	779.930	93.589	71.189	3.013	97.836	7.837	3.567	8.097	16.049	1.770	7.777	7.662	23.643	14.208	8.799	30.920	125.944	14.844	65.879	6.133	5.339	4.743	12.918	18.672	10.818	10.799	5.566	0	3.628
Jun-01	282.071	590.393	740	32.643	42.982	35.520	3.466	171	1.165	8.177	440	5.402	8.372	37.243	5.726	9.469	31.940	124.408	1.018	57.418	10.327	3.694	6.784	63.093	21.603	7.390	3.040	6.134	4.606	6.630
Jul-01	297.990	183.439	48.519	47.649	4.943	27.076	9.657	3.148	0	29.040	489	8.255	7.915	139.925	14.116	3.964	35.040	89.629	1.018	57.418	10.327	3.694	6.784	63.093	21.603	7.390	3.040	6.134	4.606	6.630
Ago-01	677.189	372.813	7.233	67.500	62.644	15.561	3.338	0	10.497	67.295	4.006	15.109	16.372	270.800	10.416	19.488	43.491	78.172	1.611	32.811	9.334	10.316	12.609	24.850	13.822	9.937	0	8.103	10.237	3.428
Sep-01	681.691	719.529	87.599	21.021	1.166	24.100	10.926	0	11.954	10.189	6.589	6.791	11.761	91.662	18.328	12.811	21.754	70.642	5.129	62.329	13.965	10.894	9.314	34.693	3.044	2.290	8.621	8.245	1.636	4.093
Oct-01	151.599	718.121	36.099	60.014	614	89.100	13.760	0	2.016	2.414	9.112	3.401	7.337	11.552	16.559	6.762	16.910	69.824	810	59.911	11.234	3.519	1.902	6.458	6.654	629	2.989	0	10.169	1.028
Nov-01	187.772	401.310	35.093	43.056	339	33.078	30.601	0	9.053	1.550	16.630	45	644	2.523	17.235	1.256	9.753	48.594	118	60.528	13.171	120	1.930	10.971	190	372	2.900	1.616	334	1.341
Dic-01	333.185	372.630	24.653	23.458	147	10.478	13.650	0	6.268	412	628	20.609	0.644	23.412	3.218	4.550	46.597	57.448	0	44.768	7.781	3.136	3.024	1.912	5.406	2.904	3.467	2.537	2.893	6.741
Ene-02	362.555	399.668	50.898	61.764	0	71.152	0	11.033	3.109	1.412	2.021	8.019	19.487	83.231	2.021	8.019	78.193	48.899	0	78.002	17.642	4.693	8.602	20.704	31.224	10.109	9.664	4.244	1.430	0
Feb-02	215.913	637.510	109.869	80.282	18.833	35.611	1.354	12.060	1.569	107.572	12.417	19.469	10.487	93.231	2.021	8.019	78.193	48.899	0	78.002	17.642	4.693	8.602	20.704	31.224	10.109	9.664	4.244	1.430	0
Mar-02	583.649	681.020	133.390	71.819	5.180	10.697	19.126	33.291	5.430	7.490	3.349	20.516	19.628	107.758	11.149	19.295	103.958	31.705	691	49.811	4.637	9.813	13.340	49.358	23.963	11.850	18.616	9.410	17.540	5.826
Abr-02	678.752	691.305	75.557	70.892	3.271	49.893	3.659	8.361	8.169	18.377	1.666	8.862	19.832	45.597	4.641	12.218	97.551	165.105	668	81.689	12.248	10.424	7.245	27.733	23.750	12.309	7.992	6.031	4.981	3.678
May-02	643.572	935.497	115.522	62.384	2.166	130.793	8.322	3.609	9.498	16.955	1.953	10.007	8.930	27.616	16.610	10.059	49.516	168.098	18.068	69.824	7.285	6.296	5.645	15.379	29.077	13.555	12.668	4.184	0	2.210
Jun-02	340.455	730.931	918	41.014	53.997	40.549	3.654	228	2.035	8.756	461	7.812	9.852	30.708	6.422	6.224	44.301	46.693	1.070	68.284	12.118	4.262	7.700	60.302	24.486	9.259	3.407	7.062	5.217	7.874
Jul-02	353.775	797.554	89.874	63.151	9.092	37.883	5.642	3.184	0	29.645	479	12.103	9.334	144.448	10.116	3.972	43.301	45.693	1.070	68.284	12.118	4.262	7.700	60.302	24.486	9.259	3.407	7.062	5.217	7.874
Ago-02	695.248	461.831	8.618	91.805	121.369	23.388	3.469	0	29.699	54.879	4.051	27.364	19.210	220.123	10.729	17.630	64.020	83.952	1.550	94.182	11.934	17.037	11.634	91.403	15.447	11.200	0	10.035	11.990	4.614
Sep-02	700.715	691.542	71.139	29.057	643	32.310	14.662	0	3.370	2.655	8.699	4.893	8.716	15.765	17.359	8.611	19.703	81.281	800	69.452	13.743	4.293	2.187	5.833	9.709	483	3.410	0	11.602	1.446
Oct-02	219.701	692.139	47.009	74.997	643	82.310	14.662	0	4.065	2.647	9.892	4.199	8.054	13.582	18.855	7.023	19.512	84.230	958	69.564	13.743	4.293	2.327	6.074	10.557	920	3.659	0	12.451	1.279
Nov-02	227.640	488.554	43.329	56.481	354	44.831	31.670	0	8.911	1.600	17.903	82	782	2.481	19.130	1.368	12.990	47.142	16.113	71.233	14.212	0	338	11.417	0	422	4.304	355	5.778	0
Dic-02	405.853	339.594	29.765	30.600	180	14.078	19.270	0	8.108	92	10.462	0	1.481	0	21.004	1.178	6.483	29.397	129	71.893	16.229	146	2.264	11.416	217	420	3.378	2.152	388	1.832

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.4 γ = 0.4

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	174,696	517,681	65,725	65,653	14,992	24,991	1,667	10,008	1,391	65,357	10,146	15,710	8,439	65,285	1,052	6,472	67,634	39,125	0	63,271	14,268	3,870	5,313	39,854	16,668	8,009	7,671	3,418	1,154	0
Mar-01	476,659	470,703	112,429	68,408	2,643	11,674	14,668	26,170	4,121	6,282	5,092	18,691	13,111	69,550	9,437	10,882	82,781	25,693	564	36,105	3,833	8,149	11,016	38,274	21,469	9,767	15,313	7,787	14,675	4,596
Abr-01	557,084	479,207	91,993	59,432	2,014	14,009	2,580	6,497	3,269	16,016	1,478	6,577	13,151	39,396	4,320	10,393	79,477	197,492	287	43,091	10,251	8,816	6,111	21,969	17,654	10,430	6,409	5,118	4,237	3,622
May-01	449,618	782,165	89,579	71,322	1,891	98,113	7,681	3,516	8,592	16,640	1,782	7,723	7,477	70,725	13,633	8,616	33,578	135,494	14,295	65,009	6,163	5,880	4,763	12,047	16,583	10,825	10,811	3,576	0	1,632
Jun-01	282,592	231,664	741	32,892	42,483	36,660	3,472	171	1,173	8,178	450	5,468	8,395	37,331	6,791	5,392	31,085	173,891	528	31,650	0	20	5,495	17,976	8,901	2,943	3,959	3,647	8,518	2,232
Jul-01	299,295	163,664	46,592	47,692	4,648	27,698	5,660	3,149	0	29,040	449	5,295	7,650	130,031	13,725	3,462	35,700	57,665	1,029	57,405	10,343	3,660	6,799	65,139	23,607	7,321	3,941	6,180	4,601	3,634
Ago-01	577,764	372,516	7,233	67,659	67,653	18,660	3,337	0	16,459	52,285	3,667	13,190	16,373	225,575	9,757	15,417	43,641	26,176	1,644	25,513	9,335	10,316	17,692	25,951	13,877	9,957	0	8,704	10,238	3,426
Sep-01	581,195	718,903	87,679	21,607	1,167	24,090	10,918	0	11,938	10,189	8,179	6,992	11,755	81,653	18,302	12,604	21,769	259,827	5,112	62,759	13,068	10,868	6,309	31,907	3,844	2,560	5,516	5,250	1,535	4,591
Oct-01	161,699	717,975	33,679	59,945	614	60,162	13,722	0	2,011	2,414	8,067	3,492	7,300	11,429	10,511	6,720	16,911	68,190	816	49,719	11,209	3,504	1,900	8,468	6,612	428	2,987	0	10,169	1,035
Nov-01	187,383	490,443	35,041	42,090	329	33,014	29,368	0	6,468	1,600	18,469	43	643	2,199	37,162	1,284	9,764	39,931	14,056	52,289	11,952	0	291	10,588	0	373	3,541	286	4,703	0
Dic-01	332,321	272,235	24,898	23,416	146	10,489	13,884	0	8,246	82	9,426	0	1,239	0	18,696	1,909	9,909	21,932	118	49,417	13,122	116	1,993	10,393	182	172	2,902	1,626	333	1,239
Ene-02	358,639	697,869	69,742	84,199	0	70,561	0	12,046	3,139	412	816	20,833	6,902	23,225	3,642	4,517	48,503	65,940	0	43,219	7,174	3,114	3,669	1,859	5,305	2,592	3,390	2,255	2,664	5,781
Feb-02	215,482	631,378	103,614	82,272	18,462	36,652	1,298	12,208	1,667	107,321	12,366	19,469	10,474	82,183	2,013	8,031	76,199	49,429	0	77,810	17,491	4,629	8,564	49,229	21,216	10,106	9,978	4,236	1,427	0
Mar-02	582,011	978,569	139,428	70,927	2,964	14,618	16,879	33,346	6,346	7,468	2,340	20,351	15,650	107,631	11,104	13,247	103,093	31,403	879	46,364	3,624	9,856	13,324	45,501	25,959	11,648	18,604	9,298	17,618	5,814
Abr-02	676,052	690,430	95,648	70,617	2,567	49,028	2,658	8,378	6,163	18,372	1,680	8,962	15,708	48,808	4,014	13,204	87,556	164,827	166	51,733	12,217	10,221	7,337	27,092	20,760	12,345	7,503	6,056	4,676	4,656
May-02	642,824	864,511	115,169	92,302	2,189	120,643	8,256	6,810	9,828	16,585	1,648	10,959	8,863	39,585	19,516	10,049	49,529	160,791	15,952	66,709	7,270	6,280	5,573	14,265	19,072	12,664	12,660	4,190	0	3,208
Jun-02	340,041	739,164	913	42,984	46,247	49,488	3,676	228	2,042	6,788	483	7,813	9,850	30,660	6,407	6,229	33,583	145,778	242	37,658	0	34	6,322	19,370	10,660	2,329	3,546	5,254	9,738	2,162
Jul-02	358,483	292,166	59,662	63,119	5,034	37,555	6,650	4,184	0	29,685	477	12,104	9,209	144,249	16,086	3,909	43,282	49,023	1,068	68,184	12,109	4,249	7,786	63,281	26,481	8,286	3,466	7,668	5,210	7,503
Ago-02	694,879	491,585	6,913	69,180	61,649	21,380	3,484	0	29,917	54,976	3,615	22,335	19,534	293,011	15,716	17,643	64,021	93,310	1,578	33,022	10,928	11,650	14,814	26,393	15,448	11,293	0	10,032	11,560	4,815
Sep-02	700,931	891,722	71,124	28,644	1,219	33,197	11,036	0	20,558	10,704	8,706	10,202	13,911	68,390	20,178	14,451	26,923	193,233	5,363	74,098	15,351	12,679	10,660	33,642	3,405	2,589	9,693	9,529	1,741	6,149
Oct-02	218,767	822,312	47,609	79,057	643	62,311	14,961	0	3,356	2,683	8,693	4,993	8,718	13,765	17,248	6,611	19,703	81,379	809	59,431	13,234	4,049	2,187	9,838	9,709	883	3,416	0	11,001	3,446
Nov-02	227,690	494,650	43,131	56,483	364	44,800	31,693	0	8,951	1,609	17,975	62	783	2,482	19,337	1,463	12,050	47,149	16,118	71,356	14,216	0	335	11,478	0	427	4,046	339	6,429	0
Dic-02	405,073	339,629	29,767	30,608	160	14,683	18,268	0	9,232	85	10,490	0	1,461	0	21,670	1,173	6,493	29,407	126	71,626	15,729	140	2,268	11,419	217	430	3,378	2,153	358	1,633

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.4 γ = 0.6

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	174,696	517,681	65,725	65,653	14,992	24,991	1,667	10,008	1,391	65,357	10,146	15,710	8,439	65,285	1,052	6,472	67,634	39,125	0	63,271	14,268	3,870	5,313	39,854	16,668	8,009	7,671	3,418	1,154	0
Mar-01	481,991	476,565	112,704	68,778	2,870	11,760	14,371	25,876	4,191	6,233	5,060	18,665	13,160	69,643	9,626	11,010	82,782	25,885	523	36,665	3,890	8,293	11,088	38,925	21,620	9,843	15,392	7,818	14,716	4,628
Abr-01	561,457	482,692	91,213	55,723	2,031	13,248	2,431	6,415	3,329	16,016	1,502	6,670	13,215	39,537	4,295	10,398	79,468	198,431	605	43,512	10,378	8,660	6,143	22,464	17,551	10,455	6,425	5,140	4,269	3,713
May-01	452,210	788,508	89,714	71,596	1,903	98,659	7,778	3,466	8,654	15,949	1,803	7,767	7,503	71,030	13,697	8,654	33,537	136,093	14,883	65,310	6,216	5,870	4,771	12,095	16,601	10,824	10,830	3,589	0	1,638
Jun-01	283,745	233,618	751	32,973	42,659	36,697	3,500	171	1,180	8,176	453	5,466	8,464	37,453	6,818	5,415	31,352	173,982	530	31,837	0	20	5,493	18,092	8,907	2,943	3,964	3,657	8,560	2,238
Jul-01	299,839	163,922	46,611	46,037	4,653	27,735	5,692	3,150	0	29,041	451	5,293	7,623	130,216	13,766	3,457	35,037	57,729	1,029	57,623	10,379	3,703	6,807	65,217	23,616	7,321	3,943	6,146	4,599	3,634
Ago-01	577,826	372,651	7,233	67,655	67,649	18,658	3,335	0	16,473	52,265	4,665	13,169	16,374	225,501	9,750	15,418	43,641	26,182	1,644	25,510	9,337	10,317	17,700	25,954	13,872	9,957	0	8,704	10,239	3,426
Sep-01	580,355	717,458	87,655	21,554	1,169	24,091	10,488	0	11,909	10,189	8,197	6,991	11,745	81,665	18,290	12,594	21,765	259,515	5,099	62,744	13,919	10,870	6,331	31,972	3,843	2,560	5,516	5,242	1,533	4,585
Oct-01	161,705	716,034	33,648	59,830	612	60,063	13,649	0	2,001	2,414	8,044	3,483	7,278	11,408	10,490	6,729	16,912	68,681	812	49,648	11,165	3,500	1,897	8,454	6,627	428	2,985	0	10,143	1,033
Nov-01	188,649	335,572	35,009	42,660	328	32,907	29,139	0	6,454	1,600	18,337	43	641	2,192	37,037	1,281	9,755	39,663	14,058	52,096	11,892	0	290	10,570	0	372	3,507	283	4,692	0
Dic-01	330,852	271,047	24,809	23,346	146	10,476	13,750	0	8,207	82	9,341	0	1,235	0	18,729	1,902	9,925	21,445	114	49,110	13,037	116	1,987	10,324	182	172	2,898	1,619	332	1,236
Ene-02	352,693	678,251	69,186	83,274	0	69,612	0	12,340	3,047	412	497	20,668	6,830	23,014	3,617	4,462	48,631	64,098	0	42,307	6,997	3,078	3,555	1,877	5,278	2,569	3,377	2,231	2,616	5,635
Feb-02	214,760	629,259	103,122	82,087	18,422	39,463	1,293	12,469	1,664	107,319	12,279	19,478	10,453	81,958	1,999	8,012	76,208	48,283	0	77,482	17,404	4,598	8,518	49,038	21,203	10,106	9,968	4,226	1,423	0
Mar-02	580,793	976,215	139,316	70,782	2,973	14,778	16,163	33,449	6,356	7,458	2,327	20,360	15,950	107,397	11,032	13,217	103,164	31,122	675	46,184	4,003	9,846	13,296	45,209	25,945	11,646	18,585	9,317	17,461	5,803
Abr-02	675,784	688,648	95,498	70,691	2,559	49,419	2,642	8,393	6,187	18,272	1,653	8,964	15,769	48,797	4,015	12,179	87,564	164,537	662	51,604	12,167	10,208	7,224	27,049	20,739	12,343	7,589	6,074	4,662	4,664
May-02	641,265	862,039	115,423	92,169	2,182	120,450	8,250	4,612	9,679	16,585	1,658	10,952	8,870	39,934	18,488	10,032	49,524	160,560	15,976	66,513	7,245	6,240	5,551	14,247	19,063	12,662	12,671	4,183	0	2,205
Jun-02	339,445	738,643	913	42,934	46,145	49,428	3,668	228	2,050	6,788	481	7,814	9,874	30,623	6,382	6,223	33,536	145,844	241	37,591	0	23	6,314	19,349	10,676	2,330	4,549	4,220	9,720	3,159
Jul-02	357,987	291,927	59,647	61,060	5,004	37,526	6,611	4,184	0	29,685	476	12,105	9,231	144,185	16,043	3,908	43,264	48,672	1,065	68,078	12,078	4,245	7,779	63,197	26,474	8,284	3,465	7,091	5,206	7,509
Ago-02	694,262	491,192	6,911	69,152	61,643	21,366	3,476	0	29,842	54,875	4,024	22,327	19,193	293,022	15,668	17,631	64,023	93,338	1,576	33,048	10,913	11,622	14,803	26,378	15,443	11,293	0	10,019	11,559	4,815
Sep-02	700,917	891,349	71,117	28,637	1,212	33,208	11,023	0	20,783	10,701	8,690	10,282	13,907	68,353	20,157	14,446	26,923	193,184	5,357	74,050	15,339	12,665	10,656	33,630	3,405	2,589	9,691	9,525	1,740	6,147
Oct-02	218,749	822,201	47,606	79,056	643	62,314	14,953	0	3,413	2,683	8,697	4,992	8,717	13,764	17,255	6,611	19,703	81,378	809	59,428	13,233	4,048	2,187	9,838	9,709	883	3,416	0	11,001	3,447
Nov-02	227,664	494,612	43,134	56,502	364	44,812	31,709	0	9,020	1,609	17,987	62	783	2,482	19,350	1,468	12,050	47,149	16,128	71,335	14,222	0	335	11,481	0	427	4,046	339	6,422	0
Dic-02	405,026	339,454	29,773	30,621	160	14,691	18,311	0	9,231	85	10,501	0	1,462	0	21,618	1,169	6,493	29,433	126	71,583	15,743	140	2,268	11,421	217	430	3,378	2,154	358	1,633

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.6 γ = 0.1

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	173,478	508,561	63,969	69,346	14,834	28,723	1,091	10,629	1,374	65,354	10,600	16,725	8,466	65,914	1,629	6,435	62,620	25,916	0	63,723	14,114	3,852	5,287	39,788	16,943	8,055	7,653	3,401	1,147	0
Mar-01	473,852	461,992	112,200	69,231	2,629	11,642	13,664	28,550	4,078	6,241	5,061	18,648	13,056	69,419	9,315	10,801	82,806	25,516	577	37,696	3,788	8,110	10,969	38,089	21,431	9,744	15,290	7,718	14,428	4,564
Abr-01	553,781	477,918	91,022	55,416	1,988	14,009	2,349	6,610	3,226	16,313	1,453	6,654	13,062	39,072	4,257	10,233	78,609	198,633	587	43,289	10,104	8,661	6,072	22,188	17,665	10,399	6,378	5,097	4,201	3,700
May-01	448,855	779,977	89,466	71,619	1,943	98,559	7,662	3,513	8,575	14,840	1,744	7,619	7,420	71,249	13,637	8,524	33,991	134,356	14,408	65,442	6,092	5,901	4,709	12,237	16,424	10,733	10,719	3,543	0	1,618
Jun-01	280,767	230,526	749	33,219	41,999	37,003	3,550	179	1,168	7,979	457	5,535	8,393	37,509	6,851	5,348	31,092	172,333	521	31,381	0	20	5,469	17,917	8,769	2,914	3,905	3,601	8,397	2,210
Jul-01	299,043	163,522	46,673	46,765	4,651	28,460	5,328	3,348	0	27,010	432	4,863	7,816	129,403	13,238	3,498	33,082	59,140	978	54,825	10,183	3,630	6,647	62,225	23,047	7,168	3,891	6,072	4,487	5,434
Ago-01	572,105	373,334	7,219	69,091	63,014	18,169	3,163	0	16,003	49,661	4,431	13,211	16,109	217,200	9,302	15,007	43,746	25,972	1,429	25,074	9,164	10,062	17,180	25,752	13,384	9,681	0	8,598	9,943	3,466
Sep-01	576,614	720,569	87,714	22,290	1,091	23,288	9,816	0	11,583	9,845	7,959	7,075	11,518	88,955	17,431	12,224	21,627	75,138	4,773	61,269	13,068	10,869	6,075	31,812	2,923	2,510	5,241	5,024	1,482	4,437
Oct-01	170,763	720,418	34,108	62,183	474	60,630	12,665	0	1,943	2,354	7,819	3,241	7,210	10,611	14,071	6,525	16,993	67,208	754	48,668	10,944	3,387	1,832	8,272	6,220	358	2,872	0	9,768	1,105
Nov-01	189,257	492,229	35,072	44,741	301	33,157	30,055	0	6,291	1,378	16,192	48	626	2,075	16,152	1,210	9,780	36,876	13,603	51,165	11,654	0	280	9,761	0	356	3,361	265	3,490	0
Dic-01	328,160	273,704	24,856	24,406	133	11,189	12,660	0	8,052	78	8,803	0	1,200	0	17,746	1,565	8,237	23,925	105	53,347	12,784	118	1,653	9,492	178	154	2,771	1,788	318	1,648
Ene-02	357,269	695,313	69,695	85,120	0	70,620	0	12,936	3,063	376	451	22,975	6,748	31,858	3,476	4,369	49,687	65,860	0	43,832	7,070	3,007	3,469	1,747	6,181	2,453	3,250	2,304	2,722	6,177
Feb-02	213,143	634,351	103,807	85,406	18,911	37,683	1,161	12,922	1,607	98,000	11,432	21,313	10,208	77,500	1,699	7,723	73,209	47,826	0	78,476	17,073	4,744	8,396	49,723	20,969	9,962	9,462	4,081	1,325	0
Mar-02	577,266	982,422	139,387	73,277	2,769	18,993	19,116	33,150	6,165	6,827	2,167	22,005	15,623	102,349	10,564	12,930	103,107	30,943	628	46,693	4,530	9,519	12,900	45,071	24,766	11,137	17,656	8,916	16,844	5,387
Abr-02	671,157	692,768	95,540	72,716	2,139	51,653	3,510	8,238	6,011	17,156	1,675	9,635	15,616	44,617	4,750	11,878	87,597	162,256	528	51,228	12,031	9,954	7,039	26,110	19,965	11,921	7,359	5,944	4,585	5,111
May-02	640,672	868,608	115,848	95,127	2,068	134,559	7,669	4,702	9,016	16,829	1,802	11,255	8,760	28,273	15,193	8,958	49,582	155,168	15,343	69,310	7,599	6,140	5,438	13,696	18,560	12,251	12,308	4,124	0	2,797
Jun-02	340,224	737,754	914	43,021	46,340	50,336	3,618	232	1,864	6,874	476	8,012	9,841	30,364	6,351	6,179	33,634	145,577	238	37,537	0	23	6,271	19,093	9,947	2,304	4,509	4,209	9,555	3,229
Jul-02	360,168	303,169	60,039	63,462	5,107	39,109	6,871	4,273	0	29,693	460	13,161	9,327	144,708	16,160	3,960	43,465	45,802	1,078	68,640	12,168	4,290	7,897	63,362	26,592	8,302	3,470	7,109	5,231	7,529
Ago-02	701,093	564,250	6,997	69,129	61,731	21,258	3,583	0	24,765	55,012	5,073	25,153	19,402	294,400	15,642	17,678	64,249	90,482	1,621	33,012	11,000	11,941	14,710	26,054	15,676	11,372	0	10,161	11,768	4,786
Sep-02	709,843	897,411	71,416	28,379	1,207	32,680	11,037	0	18,973	11,143	9,011	10,030	14,053	70,462	20,060	14,782	27,076	191,810	5,612	75,293	15,554	12,750	10,907	33,631	3,460	2,653	9,922	9,733	1,785	6,242
Oct-02	223,372	833,620	47,411	78,274	676	60,655	15,464	0	2,976	2,709	9,192	4,275	8,919	13,263	18,030	6,813	19,645	83,197	919	59,872	13,605	3,139	2,255	9,169	10,076	900	3,625	0	12,001	3,410
Nov-02	231,711	507,664	43,702	55,758	379	43,761	33,647	0	8,513	1,721	19,162	60	783	2,693	20,419	1,521	12,191	48,383	17,277	71,878	14,616	0	355	12,246	0	445	4,292	350	6,639	0
Dic-02	415,497	349,250	31,085	33,165	173	15,642	19,465	0	8,999	102	11,230	0	1,573	0	22,815	1,225	6,541	30,836	136	72,659	16,160	149	2,364	12,246	226	450	3,521	2,230	405	1,707

FOTOCOPIA
BIBLIOTECA
FCA

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.9 γ = 0.4

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	174,615	612,039	83,729	65,693	14,933	29,901	1,067	10,823	1,591	85,257	10,145	18,710	8,439	66,283	1,652	8,472	62,604	39,159	0	63,371	14,259	3,970	5,312	39,954	18,668	8,665	7,671	3,418	1,164	0
Mar-01	475,510	470,512	112,417	55,438	2,535	11,683	14,023	28,359	4,114	0.249	9,641	19,035	15,100	69,894	9,418	10,939	82,780	29,639	283	35,180	3,783	6,140	11,007	38,194	21,464	9,747	15,317	7,746	14,554	4,602
Abr-01	555,663	478,770	84,058	55,685	1,698	33,147	2,565	6,602	3,750	19,913	1465	6,631	13,114	39,188	4,289	10,260	70,459	137,091	591	42,869	10,221	8,589	6,068	24,189	17,580	10,393	6,365	6,100	4,217	3,710
May-01	447,704	561,023	89,583	71,706	1,617	99,019	7,612	3,650	6,843	14,780	1,781	7,917	7,435	29,455	13,078	8,548	39,059	134,547	14,469	59,573	6,116	5,308	4,714	12,783	16,430	10,734	10,726	2,548	0	3,630
Jun-01	280,791	590,548	749	33,220	41,210	37,200	3,351	174	1,164	7,979	437	3,865	8,304	56,664	8,653	8,375	31,992	122,338	221	31,396	0	20	5,410	17,818	8,750	5,014	3,908	3,601	2,569	2,310
Jul-01	295,616	163,239	49,553	48,734	4,646	29,424	6,313	3,256	0	27,919	420	8,665	7,869	128,317	13,701	8,392	36,084	93,092	974	56,725	10,162	3,697	6,661	62,669	23,641	7,107	2,978	6,005	3,491	5,817
Ago-01	371,192	372,315	7,230	59,007	52,773	16,132	3,139	0	10,661	49,669	6,403	16,217	10,074	217,406	9,329	15,005	43,749	74,649	1,422	31,968	9,123	10,031	12,389	23,886	15,377	6,552	0	3,486	2,018	3,531
Sep-01	673,508	718,434	57,653	22,228	1,077	35,216	9,741	0	11,914	9,549	7,825	7,579	11,495	68,793	17,309	12,194	21,799	74,910	4,741	61,032	13,583	10,543	9,092	31,958	7,091	2,301	8,232	8,092	1,476	6,459
Oct-01	179,092	718,076	34,070	61,994	472	63,479	18,055	0	1,930	2,234	7,455	5,783	7,201	10,614	14,554	6,629	15,006	59,978	748	40,811	10,661	3,378	1,828	5,004	9,229	405	2,802	0	9,721	3,105
Nov-01	164,832	400,252	35,038	44,625	309	35,038	20,647	0	5,256	1,378	15,065	48	625	3,068	16,021	1,212	9,781	28,543	13,687	57,816	11,597	0	270	9,724	0	336	3,357	270	4,482	0
Dic-01	327,393	212,729	21,434	24,354	133	11,134	12,655	0	8,021	79	8,607	0	1,301	0	17,014	962	8,238	23,830	164	39,667	12,710	114	1,848	5,466	128	563	2,767	1,754	317	1,449
Ene-02	353,602	569,531	50,731	47,000	0	70,027	0	13,166	3,010	375	471	21,910	6,760	21,695	3,404	4,328	46,089	50,359	0	42,293	6,969	2,699	3,445	1,735	5,094	2,641	3,233	2,692	2,724	5,136
Feb-02	212,676	533,729	109,788	85,356	10,855	37,663	1,188	14,069	1,505	68,006	11,413	21,315	10,203	77,523	1,805	7,718	78,161	47,244	0	78,461	17,023	4,742	6,332	48,697	20,090	8,828	9,169	4,060	1,364	0
Mar-02	977,539	642,702	1,139,408	73,301	2,763	18,591	19,127	39,196	6,161	0.877	2,183	22,004	18,624	102,393	10,076	12,603	103,185	59,855	690	45,229	4,434	9,545	12,669	42,066	25,248	11,316	17,659	9,117	16,892	5,234
Abr-02	672,175	503,670	76,569	72,760	2,134	61,697	2,919	8,667	8,944	17,106	1,580	9,533	15,933	43,023	4,774	11,909	87,553	162,906	630	51,327	12,059	9,063	7,047	26,139	19,971	11,822	7,363	5,987	4,833	5,116
May-02	641,936	670,233	119,611	84,266	2,074	134,610	8,033	4,707	9,044	16,870	1,892	11,491	9,709	36,233	10,209	9,065	49,548	159,485	15,410	69,562	7,209	6,169	5,446	13,718	10,576	12,263	17,316	4,181	0	2,231
Jun-02	341,167	235,270	918	43,657	44,469	50,606	3,642	224	1,691	8,514	470	8,009	8,858	59,375	8,358	8,182	33,458	126,885	1,061	33,690	12,219	4,269	7,822	29,507	23,816	8,301	3,473	7,124	3,246	7,040
Jul-02	381,158	203,742	53,043	53,660	5,143	38,183	6,911	4,167	0	29,600	465	10,176	9,343	16,292	3,103	9,160	43,458	96,923	1,061	69,690	12,219	4,269	7,822	29,507	23,816	8,301	3,473	7,124	3,246	7,040
Ago-02	703,035	465,033	8,664	63,256	64,227	21,342	3,606	0	24,867	60,012	6,103	22,135	19,442	264,978	11,005	17,015	64,234	69,716	1,639	39,147	11,114	12,007	14,733	27,038	15,641	11,174	0	10,181	11,799	6,734
Sep-02	714,342	629,631	71,598	28,423	1,371	39,741	11,621	0	17,634	11,149	9,128	10,017	14,674	70,638	20,883	14,606	27,015	92,003	5,639	73,808	16,765	12,810	10,925	37,884	3,500	2,693	9,930	8,748	1,790	6,382
Oct-02	223,886	600,713	47,433	78,347	378	89,772	15,630	0	3,654	2,703	9,223	4,774	8,922	13,312	18,105	8,622	19,644	83,203	922	53,702	13,023	4,126	2,259	6,174	10,079	500	3,528	0	12,074	1,411
Nov-02	231,991	603,558	43,765	55,693	586	43,603	34,091	0	6,828	1,721	19,211	59	784	3,535	20,334	1,522	12,190	49,445	17,319	72,869	14,638	0	350	12,255	0	446	4,291	350	5,648	0
Dic-02	413,641	542,656	31,699	30,164	173	19,699	16,467	0	8,005	102	11,244	0	1,675	0	22,642	1,228	6,541	30,251	136	73,504	16,203	146	2,355	12,251	228	459	3,522	2,231	495	1,765

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.9 γ = 0.4

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	176,761	617,505	89,189	67,166	19,164	29,178	1,099	10,451	1,419	85,257	10,368	19,645	8,500	66,803	1,663	8,525	62,578	39,541	0	63,354	14,507	4,002	5,354	40,351	17,996	8,678	7,700	3,446	1,168	0
Mar-01	480,937	474,837	112,678	54,766	2,662	11,774	14,311	28,059	4,188	8,242	9,642	19,815	13,174	90,457	9,533	11,012	82,764	29,848	593	35,600	3,891	6,161	11,071	39,480	21,492	9,783	15,361	7,788	14,087	4,632
Abr-01	559,387	481,758	81,177	55,769	2,012	33,948	2,402	6,449	3,791	18,914	1,484	8,665	13,165	39,378	4,345	10,507	70,453	137,681	595	43,299	10,316	8,619	6,113	24,269	17,601	10,397	6,399	6,123	4,243	3,727
May-01	449,145	563,478	93,818	71,857	1,894	99,253	7,656	3,533	6,574	14,840	1,763	7,813	7,449	29,514	13,764	8,568	39,054	134,650	14,548	59,766	6,145	5,318	4,725	12,780	16,448	10,737	10,737	2,550	0	3,654
Jun-01	280,849	590,632	749	33,222	41,269	37,202	3,353	174	1,164	7,979	437	3,865	8,305	56,663	8,656	8,376	31,992	122,382	221	31,396	0	20	5,411	17,822	8,750	5,014	3,908	3,602	2,569	2,310
Jul-01	294,726	163,533	49,553	48,653	4,631	29,392	6,285	3,232	0	27,919	428	8,666	7,758	128,119	13,694	8,387	35,987	93,010	969	56,683	10,128	3,621	6,650	62,672	23,631	7,103	2,977	6,010	3,491	5,806
Ago-01	368,939	370,637	7,222	58,856	52,802	16,070	3,104	0	10,654	49,659	6,397	16,228	10,031	218,013	9,275	14,995	43,766	74,466	1,409	31,784	9,068	10,021	12,322	23,617	13,300	6,534	0	3,466	2,674	3,529
Sep-01	670,097	714,223	57,578	22,140	1,070	35,091	9,611	0	11,856	9,547	7,830	7,563	11,452	68,525	17,098	12,142	21,814	74,822	4,689	60,978	13,464	10,503	9,087	31,733	7,018	2,288	8,202	8,073	1,482	6,442
Oct-01	177,871	713,426	34,008	61,729	469	63,060	17,982	0	1,909	2,234	7,351	5,738	7,172	10,757	14,352	6,491	15,000	59,880	738	40,728	10,774	3,360	1,820	5,030	9,215	402	2,803	0	9,707	3,105
Nov-01	163,372	398,272	34,988	44,497	308	34,988	20,528	0	5,193	1,378	14,944	48	622	2,057	16,785	1,208	9,753	28,317	13,492	57,482	11,472	0	268	9,650	0	335	3,350	277	4,452	0
Dic-01	325,378	221,158	21,787	25,260	132	11,013	12,371	0	7,957	79	8,485	0	1,169	0	17,384	956	8,239	23,782	163	67,642	12,601	114	1,841	9,417	179	563	2,761	1,749	316	1,437
Ene-02	347,657	579,628	50,474	46,661	0	74,040	0	13,460	3,021	375	464	23,661	6,836	21,583	3,472	4,320	46,228	51,662	0	42,185	6,969	2,699	3,445	1,735	5,094	2,641	3,233	2,692	2,724	5,136
Feb-02	212,655	532,526	109,781	85,299	10,847	37,628	1,164	14,151	1,502	68,006	11,378	21,315	10,194	77,435	1,800	7,710	78,305	47,169	0	78,375	17,019	4,737	6,329	48,682	20,090	8,827	9,169	4,059	1,362	0
Mar-02	978,020	583,176	139,433	73,342	2,763	18,602	18,167	38,310	6,170	0.877	2,103	23,002	19,630	102,457	10,053	12,612	103,182	59,597	691	45,264	4,436	9,550	12,676	42,110	24,752	11,349	17,634	9,122	16,868	6,235
Abr-02	673,939	505,171	79,918	77,911	2,149	61,782	2,835	8,207	8,967	17,107	1,589	9,951	16,557	44,167	4,891	11,912	87,564	162,663	633	51,486	12,106	9,062	7,059	26,186	19,981	11,825	7,369	5,988	4,846	5,125
May-02	644,054	673,504	119,723	84,500	2,084	135,239	8,102	4,713	9,065	16,869	1,904	11,445	9,814	36,404	10,256	9,043	49,541	160,058	15,543	69,830	7,272	6,197	5,461	13,756	10,592	12,297	17,334	4,142	0	2,297
Jun-02	342,770	236,576	918	43,727	44,743	50,668	3,663	228	1,693	8,514	484	8,004	8,862	59,401	8,362	8,187	33,524	126,938	242	37,981	0	23	6,303	19,093	9,062	2,309	4,511	4,228	9,729	3,245
Jul-02	382,943	204,712	53,166	53,779	5,169	38,341	6,949	4,183	0	29,601	480	10,165	9,372	140,603	15,443	8,993	45,451	47,127	1,092	63,819	12,308	4,293	7,648	59,750	28,943	8,301	3,470	7,149	5,272	7,006
Ago-02	706,310	467,641	8,674	63,502	64,581	21,419	3,636	0	25,035	60,014	6,169	22,132	19,499	265,825	11,116	17,019	64,269	70,305	1,639	39,377	11,151	12,046	14,765	27,128	15,693	11,227	0	10,214	11,840	4,609
Sep-02	714,123	633,418	71,729	28,466	1,377	39,844	11,732	0	17,740	11,142	9,269	10,012	14,709	70,838	20,983	14,652	27,072	92,332	5,685	73,897	16,826	12,849	10,959	37,991	3,501	2,694	9,943	8,777	1,798	6,389
Oct-02	224,396	603,459	47,660	78,623	383	89,976	15,673	0	3,668	2,700	9,293	4,772	8,946	13,346	18,221	8,638	19,642	83,492	926	61,091	13,650	4,164	2,283	6,187	10,083	500	3,531	0	12,061	1,414
Nov-02	232,473	604,299	43,797	55,878	590	43,673	34,228	0	6,852	1,721	19,268	59	785	3,550	20,383	1,525	12,189	49,533	17,322	73,176	14,681	0	351	12,273	0	446	4,297	351	5,658	0
Dic-02	414,056	542,929	31,697	30,164	173	19,699	16,524	0	8,015	102	11,267	0	1,676	0	22,694	1,227	6,541	30,277	136	73,797	16,226	146	2,356	12,259	228	459	3,523	2,231	495	1,765

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.4 β = 0.1 γ = 0.1

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	173,426	568,561	89,668	66,948	14,834	28,735	1,051	10,731	1,374	85,284	10,009	18,726	8,493	66,914	1,629	8,459	62,670	39,916	0	62,723	14,114	3,953	5,287	39,795	18,615	8,605	7,653	3,401	1,147	0
Mar-01	472,956	467,628	112,253	55,444	2,464	11,704	13,697	28,641	4,054	0.187	1,661	18,815	13,015	89,808	9,295	10,815	82,644	29,434	570	37,764	3,783	6,074	10,611	37,702	21,310	9,664	15,220	7,693	14,393	4,617
Abr-01	551,746	477,063	81,021	55,657	1,948	33,551	2,299	6,667	3,668	19,011	1,425	8,780	13,009	38,630	4,199	10,139	70,558	135,783	574	42,622	10,089	8,482	6,013	23,870	17,355	10,268	6,316	6,042	4,184	3,761
May-01	444,813	778,535	92,493	72,462	1,850	100,141	7,299	3,665	6,452	14,485	1,669	8,178	7,362	29,992	13,350	8,329	39,992	133,923	14,003	59,057	6,042	5,236	4,648	12,413	16,164	10,517	10,674	3,502	0	1,685
Jun-01	278,507	590,570	749	33,036	40,105	37,091	3,254	179	1,139	7,799	430	3,775	8,235	56,358	8,537	8,253	32,012	121,978	219	31,169	0	20	5,337	17,696	8,668	4,963	3,866	3,558	6,220	2,305
Jul-01	294,862	163,668	49,664	48,906	4,686	29,638	6,309	3,298	0	28,383	423	8,804	7,766	129,553	13,939	8,523	35,994	93,474	954	56,634	10,119	3,593	6,634	62,599	23,712	7,078	2,948	6,074	3,422	5,845
Ago-01	372,828	374,733	7,349	59,738	52,122	16,352	3,122	0	10,662	49,084	4,592	16,493	10,007	218,454	9,317	14,978	43,831	74,800	1,414	32,053	9,160	10,050	12,323	23,466	13,301	6,509	0	3,479	9,668	3,031
Sep-01	676,252	721,494	57,729	22,282	1,085	35,284	9,669	0	11,914	9,597	7,714	7,600	11,630	69,069	17,509	12,241	21,884	75,238	4,761	61,405	13,666	10,603	9,030	32,009	7,029	2,311	8,237	8,099	1,484	4,865
Oct-01	180,319	720,537	33,980	61,958	464	62,990	19,060	0	1,942	2,271	7,670	3,655	7,258	10,945	14,504	6,591	15,078	67,681	770	49,114	11,020	3,414	1,848	5,102	8,316	411	2,850	0	9,853	1,082
Nov-01	169,324	401,570	34,033	44,662	313	34,372	20,977	0	5,331	1,421	15,745	49	633	2,125	16,605	1,234	9,756	29,048	14,237	61,500	11,764	0	281	10,054	0	350	3,417	284	4,339	0
Dic-01	330,937	273,189	24,825	23,658	141	10,789	13,393	0	8,172	81	8,112	0	1,224	0	16,446	937	8,222	24,372	111	53,037	12,956	117	1,696	8,992	164	515	2,659	1,715	325	1,480
Ene-02	350,461	573,977	50,674	46,933	0	71,664	0	12,216	3,102	399	512	21,910	6,874	22,928	3,027	4,264	46,502	51,660	0	42,293	6,969	2,699	3,445	1,735	5,094	2,640	3,350	2,618	2,689	5,136
Feb-02	216,291	532,530	109,709	82,974	10,216	36,033	1,285	13,426	1,644	105,122	12,359	19,625	10,425	81,312	2,003	7,073	78,465	46,245	0	77,783	17,470	4,893	6,515	48,059	20,662	8,980	9,682	4,213	1,412	0
Mar-02	981,005	681,613	1,139,471	71,184	2,683	14,851	18,948	34,179	6,052	7,417	2,360	20,448	18,004	107,695	9,018	12,255	97,661	58,185	0	44,993	4,557	9,805	12,470	43,259	25,806	11,615	18,069	9,401	17,328	5,592
Abr-02	678,433	503,093	76,714	70,766	2,290	59,426	2,886	8,604	8,929	18,451	1,667	8,894	15,830	48,252	5,018	12,255	87,661	162,648	15,439	67,449	7,364	9,340	6,872	24,610	19,392	12,741	12,764	4,248	0	2,185
May-02	647,304	665,638	115,660	81,871	2,210	129,642	8,556	4,793	8,981	16,907	2,004	10,764	8,672	37,615	10,104	9,100	49,667	160,648	15,439	67,449	7,364	6,340	5,672	14,610	10,392	12,741	12,764	4,248	0	2,185
Jun-02	343,903	734,439	918	42,706	47,662	49,849	3,832	231	1,739	8,117	502	7,697	8,451	61,538	8,611	8,309	33,604	127,833	1,124	34,335	12,331	4,399	7,949	29,907	23,313	8,525	3,550	7,257	3,364	7,093
Jul-02	383,324	203,139	50,272	52,592	6,351	37,168	6,133	4,284	0	31,977	500	10,763	9,675	149,546	15,665	9,072	43,664	97,553	1,124	64,333	12,331	4,399	7,949	72,507	27,313	8,525	3,550	7,257	5,364	7,093
Ago-02	709,403	466,534	8,606	64,404	67,102	20,976	3,634	0	23,746	60,005	6,218	21,600	20,017	269,307	11,182	18,193	64,468	91,600	1,623	39,393	11,197	12,192	14,973	27,856	16,019	11,018	0	10,324	11,992	4,693
Sep-02	711,625	637,565	71,729	28,212	1,369	39,359	11,730	0	16,967	11,356	9,268	9,852	14,196	71,314	21,093	14,526	27,159	92,919	5,609	73,872	16,778	12,897	11,002	38,152	3,540	2,682	10,023	9,004	1,803	6,265
Oct-02	222,972	607,734	47,349	77,978	378	89,249	15,477	0	2,621	2,714	9,199	4,743	8,917	13,308	18,032	8,617	19,622	83,660	920	60,549	13,641	4,173	2,256	6,169	10,063	501	3,523	0	12,087	1,401
Nov-02	230,864	609,034	43,665	55,604	576	43,716	34,607	0	7,518	1,767	18,972	59	779	3,513	20,165	1,511	12,148	49,193	17,009	72,479	14,521	0	348	12,135	0	442	4,178	348	5,591	0
Dic-02	410,813	548,486	30,993	30,139	169	19,710	16,152	0	7,810	100	11,051	0	1,610	0	22,472	1,211	6,500	29,951	133	73,000	16,039	144	2,327	12,031	225	444	3,479	2,206	490	1,723

REPUBLICA DE GUATEMALA
FONDO NACIONAL PARA LA PAZ
FONAPAZ

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.4 β = 0.1 γ = 0.4

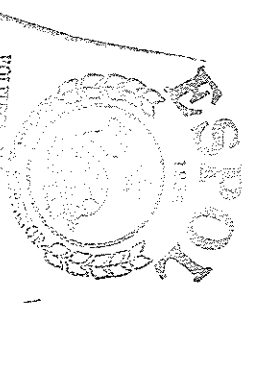
MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	174.655	512.009	86.228	69.653	14.952	28.001	1.007	10.631	1.391	85.297	10.146	16.710	8.419	68.280	1.602	6.472	62.604	39.165	0	61.221	14.200	3.670	5.312	39.584	15.905	6.669	7.671	3.118	1.164	0
Mar-01	474.767	369.676	112.371	56.586	9.505	11.740	13.812	29.695	4.099	6.187	1.976	12.896	13.045	69.675	9.326	10.678	82.232	25.819	574	37.903	2.934	6.694	10.979	37.797	21.329	9.699	15.239	7.709	14.449	4.692
Abr-01	552.748	477.597	81.648	69.993	1.052	38.609	2.906	6.670	3.709	10.611	1.410	6.769	13.014	56.505	4.204	10.140	70.564	137.600	676	42.916	10.110	5.492	6.001	24.705	17.362	10.281	6.319	5.348	4.162	3.705
May-01	446.060	785.248	93.608	72.487	1.691	100.182	7.203	3.643	5.459	14.455	1.701	8.176	7.365	73.003	13.359	8.429	97.691	133.292	12.019	59.257	8.947	5.238	4.650	12.418	16.152	10.618	10.979	2.558	0	1.697
Jun-01	279.487	550.600	740	33.631	40.095	37.643	3.203	178	1.135	7.200	425	8.775	8.270	36.952	5.133	6.254	32.012	121.201	215	31.162	0	20	5.339	17.054	8.608	1.985	3.849	3.158	8.209	2.296
Jul-01	294.775	163.597	46.558	29.276	3.843	29.932	3.207	3.302	0	26.281	427	8.978	7.757	124.452	13.074	3.235	45.666	23.854	993	68.493	10.103	3.891	6.992	61.306	22.715	7.915	2.564	5.977	4.240	5.939
Ago-01	512.371	373.636	7.248	63.992	62.092	16.380	3.117	0	19.899	40.635	3.385	19.665	16.959	216.320	9.297	14.007	43.933	74.747	1.412	32.021	9.191	10.023	12.323	23.476	13.259	9.604	0	8.475	9.668	7.634
Sep-01	575.232	729.639	67.712	22.708	1.052	23.264	6.849	0	11.556	9.957	7.700	7.875	11.554	59.619	17.469	12.233	21.005	75.179	4.780	61.337	13.653	10.377	9.031	31.991	3.026	2.211	8.245	6.031	1.483	6.883
Oct-01	160.184	718.828	39.571	61.529	483	62.811	12.695	0	1.963	2.371	7.656	5.856	7.251	10.977	14.877	8.578	15.925	67.327	769	49.058	11.005	3.412	1.847	6.169	6.319	411	2.825	0	9.849	1.091
Nov-01	180.061	401.523	35.029	44.006	312	31.352	12.924	0	5.273	1.481	10.717	45	652	9.123	16.576	1.234	0.797	34.034	16.214	58.832	11.779	0	284	10.079	0	263	3.416	283	4.981	0
Dic-01	330.667	372.076	24.820	23.875	160	19.787	13.369	0	9.163	83	9.950	0	1.223	0	18.410	695	5.223	24.285	110	58.977	12.020	117	1.855	9.847	184	263	2.835	1.764	329	1.349
Ene-02	357.640	559.418	50.702	35.109	0	32.183	0	12.350	5.109	206	503	21.542	6.840	32.782	3.503	4.357	40.969	50.503	0	43.023	7.129	3.073	3.650	1.845	5.290	2.894	3.341	2.901	3.822	5.894
Feb-02	210.916	634.476	109.776	63.109	16.209	38.103	1.293	13.281	1.955	105.123	12.337	19.819	10.439	61.501	2.013	7.997	78.062	48.356	0	77.992	17.533	4.091	6.556	49.041	23.972	9.692	9.489	4.219	1.421	0
Mar-02	684.776	582.406	129.920	71.248	3.847	14.097	19.490	34.111	8.079	7.417	2.356	20.441	15.691	107.726	11.185	13.259	103.035	31.282	983	48.841	4.649	9.874	13.334	44.291	29.003	11.816	18.677	9.409	17.552	5.529
Abr-02	620.930	693.112	75.729	70.629	7.301	49.466	3.712	6.667	5.651	10.454	1.699	8.893	19.666	48.220	6.022	12.332	87.699	169.186	678	52.158	12.734	10.393	7.225	28.094	23.997	12.424	7.647	6.133	9.035	4.656
May-02	547.472	668.274	115.969	91.989	2.220	129.612	9.562	4.728	8.356	16.992	2.605	10.764	9.984	37.520	15.945	10.198	49.667	162.693	16.450	67.478	7.371	6.341	5.023	14.633	15.393	12.741	12.766	4.248	0	2.186
Jun-02	344.916	736.471	618	42.710	47.089	48.560	3.833	231	1.749	9.117	692	7.907	10.042	31.638	0.612	0.329	39.781	149.091	252	38.198	0	24	6.466	20.099	10.331	2.389	4.647	4.316	9.970	3.107
Jul-02	363.257	809.408	69.370	62.557	8.331	37.195	9.133	4.258	0	31.077	690	11.702	9.479	149.334	15.682	4.071	43.604	47.516	1.124	69.316	12.519	2.350	7.998	72.497	27.312	8.934	3.550	7.257	5.384	2.192
Ago-02	706.362	465.549	8.000	69.304	67.082	20.973	3.062	0	23.800	58.065	6.216	21.531	19.651	200.329	11.176	10.191	64.468	91.690	1.672	19.374	11.184	12.199	14.071	27.662	16.038	11.618	0	10.323	11.980	4.693
Sep-02	711.464	897.767	71.725	28.208	1.989	32.392	11.724	0	17.000	11.360	9.203	9.863	16.137	71.202	21.083	14.937	27.120	92.301	5.677	75.551	10.772	12.855	11.001	33.147	3.640	2.682	10.022	9.606	1.602	6.264
Oct-02	222.919	897.075	47.346	77.966	878	80.234	18.460	0	2.626	2.714	9.165	4.743	8.916	13.706	18.024	6.816	19.022	61.068	920	68.828	13.538	4.121	2.256	6.182	10.093	601	3.530	0	12.004	1.491
Nov-02	230.819	500.516	43.553	55.815	376	43.709	32.650	0	7.650	1.707	18.963	80	779	2.582	20.156	1.511	12.148	46.114	17.092	72.454	14.516	0	348	12.134	0	442	4.176	348	5.569	0
Dic-02	410.123	340.413	30.903	30.128	169	13.797	18.144	0	7.227	150	11.025	0	1.510	0	22.482	1.211	8.506	29.945	133	72.945	16.028	144	2.326	12.022	225	444	3.479	2.200	400	1.775

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.4 β = 0.1 γ = 0.9

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	170.661	517.508	88.189	67.108	16.164	29.176	1.096	10.451	1.419	86.262	10.528	16.605	8.509	68.699	1.632	6.528	62.579	39.541	0	64.204	14.607	4.002	5.254	40.104	17.006	6.975	7.709	3.146	1.168	0
Mar-01	477.857	472.639	113.882	56.826	2.823	11.601	14.011	29.437	4.126	6.187	2.003	12.702	13.026	69.539	9.426	10.938	82.814	25.883	581	38.370	3.630	6.139	10.999	37.903	21.352	9.703	15.270	7.741	14.541	4.650
Abr-01	554.446	479.335	81.029	60.064	1.609	38.709	2.921	6.643	3.716	10.612	1.439	6.786	13.032	56.676	4.235	10.171	70.548	137.534	680	43.781	10.103	5.529	6.013	24.764	17.372	10.294	6.323	5.359	4.174	3.714
May-01	446.465	781.679	93.626	72.635	1.691	100.852	7.315	3.638	5.464	14.455	1.704	8.172	7.369	73.021	13.395	8.456	97.699	133.406	12.047	59.163	8.956	5.241	4.653	12.439	16.165	10.619	10.979	2.560	0	1.698
Jun-01	279.371	550.674	740	33.623	40.097	37.635	3.202	178	1.135	7.199	425	8.775	8.270	36.949	5.133	6.253	32.010	121.201	215	31.161	0	20	5.339	17.051	8.607	1.985	3.849	3.157	8.207	2.296
Jul-01	294.476	163.451	46.546	29.241	3.838	29.922	3.206	3.307	0	26.283	427	8.977	7.757	124.402	13.073	3.235	45.666	23.853	993	68.492	10.089	3.888	6.987	61.307	22.710	7.914	2.563	5.967	4.239	5.939
Ago-01	511.650	373.418	7.244	63.930	61.937	16.329	3.108	0	19.843	40.636	3.373	19.649	16.946	216.093	9.273	14.003	43.935	74.658	1.409	31.966	9.120	10.018	12.312	23.453	13.256	9.604	0	8.467	9.675	7.630
Sep-01	574.649	719.748	67.660	22.645	1.042	23.231	6.815	0	11.506	9.957	7.676	7.869	11.514	59.572	17.435	12.219	21.005	75.099	4.772	61.220	13.634	10.358	9.022	31.969	3.023	2.211	8.241	6.022	1.481	6.880
Oct-01	159.675	718.769	39.557	61.564	482	62.723	12.680	0	1.954	2.371	7.652	5.857	7.247	10.964	14.850	8.572	15.930	67.436	768	49.043	10.990	3.409	1.845	6.164	6.311	411	2.824	0	9.834	1.090
Nov-01	180.183	400.776	35.010	43.992	312	31.298	12.907	0	5.259	1.481	10.693	45	652	9.109	16.556	1.235	0.797	34.068	14.123	58.824	11.761	0	284	10.069	0	263	3.414	283	4.974	0
Dic-01	330.203	372.200	24.815	23.862	160	19.769	13.318	0	9.157	83	9.973	0	1.222	0	18.359	693	5.223	24.298	110	58.975	12.004	117	1.853	9.837	184	263	2.832	1.762	329	1.348
Ene-02	357.851	561.838	50.881	35.109	0	32.183	0	12.377	5.097	206	499	21.560	6.844	32.839	3.498	4.414	40.987	50.644	0	43.511	6.990	3.019	3.619	1.828	5.270	2.886	3.327	2.884	3.765	5.872
Feb-02	210.917	634.530	109.889	63.325	16.357	38.221	1.306	13.305	1.973	105.125	12.433	19.833	10.455	61.779	2.030	8.011	78.051	48.538	0	78.337	17.640	4.015	6.574	49.162	23.989	9.695	9.502	4.231	1.426	0
Mar-02	685.167	583.167	130.002	71.397	2.985	14.093	19.490	34.066	8.125	7.417	2.368	20.435	16.021	107.940	11.240	13.282	103.024	31.347	955	48.720	4.666	9.880	13.359	44.339	29.015	11.818	18.691	9.425	17.564	5.517
Abr-02	620.779	693.622	75.781	70.665	7.284	49.504	3.726	6.674	5.664	10.454	1.695	8.891	19.678	48.336	6.035	12.318	87.666	169.299	680	52.270	12.757	10.393	7.202	28.078	23.912	12.429	7.650	6.139	9.031	4.659
May-02	547.757	669.186	115.985	91.919	2.231	129.662	9.573	4.728	8.423	16.992	2.607	10.763	9.987	37.531	15.962	10.203	49.666	162.769	16.467	67.519	7.377	6.343	5.025	14.638	15.395	12.742	12.769	4.251	0	2.186
Jun-02	344.943	736.529	618	42.712	47.091	48.612	3.834	231	1.749	9.117	692	7.907	10.043	31.641	6.613	0.329	39.781	149.105	252	38.202	0	24	6.466	20.100	10.331	2.389	4.647	4.317	9.971	3.107
Jul-02	363.233	809.452	69.382	62.569	8.330	37.199	9.134	4.258	0	31.077	690	11.702	9.478	149.314	15.686	4.071	43.605	47.511	1.123	69.331	12.516	2.350	7.997	72.493	27.311	8.934	3.550	7.256	5.383	2.191
Ago-02	706.135	465.305	8.000	69.378	67.094	20.981	3.060	0	23.800	58.065	6.213	21.522	19.657	200.268	11.171	10.187	64.469	91.685	1.671	19.359	11.189	12.198	14.069	27.664	16.037	11.617	0	10.320	11.976	4.694
Sep-02	711.192	897.451	71.719	28.201	1.988	32.382	11.719	0	17.056	11.360	9.195	9.863	16.124	71.229	21.097	14.933	27.120	92.289	5.672	75.514	10.783	12.852	11.009	33.157	3.640	2.682	10.021	9.601	1.601	6.262
Oct-02	222.824	896.672	47.341	77.945	877	80.227	18.455	0	2.624	2.714	9.167	4.744	8.914	13.701	18.009	6.815	19.023	61.039	919	68.797	13.528	4.120	2.255	6.180	10.092	601	3.530	0	12.000	1.491
Nov-02	230.418	500.046	43.479	55.821	376	43.691	33.658	0	7.649	1.707	18.917	80	778	2.582	20.139	1.511	12.148	46.097	17.078	72.418	14.507	0	348	12.131	0	442	4.176	348	5.567	0
Dic-02	409.963	340.258	30.869	30.118	169	13.795	18.139	0	7.225	150	11.017	0	1.509	0	22.475	1.211	8.506	29.935	133	72.931	16.016	144	2.326	12.020	225	444	3.478	2.200	400	1.775

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.4 β = 0.4 γ = 0.1

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	173.478	508.561	85.669	66.348	14.832	28.733	1.051	10.731	1.374	85.251	10.093	16.729	8.403	68.514	1.629	6.439	62.620	38.916	0	61.723	14.114	3.662	5.237	39.799	16.046	6.668	7.653	3.101	1.147	0
Mar-01	472.911	467.654	112.285	56.646	2.482	11.734	13.820	28.972	4.043	6.185	1.951	12.899	12.993	69.516	9.187	10.421	82.662	25.995	567	37.790	3.728	6.566	10.886	37.993	21.282	9.674	15.195	7.669	14.356	4.653
Abr-01	550.348	477.559	81.022	69.166	1.921	38.893	2.781	6.783	3.662	10.413	1.405	6.831	12.943	56.197	4.162	10.070	70.555	135.160	666	42.359	10.037	5.429	6.087	24.955	17.319	10.268	6.273	5.303	4.122	3.691
May-01	442.851	780.002	93.491	73.205	1.642	102.335	7.095	3.760	5.387	14.417	1.657	8.404	7.304	72.603	13.208	8.308	97.024	132.186	12.029	61.643	9.088	5.117	4.609	12.783	16.115	10.641	10.947	2.565	0	1.719
Jun-01	277.642	551.275	745	34.139	39.653	38.094	3.141	186	1.118	7.186	411	8.800	8.138	36.723	5.098	6.199	32.046	119.955	207	30.897	0	19	5.347	16.485	8.425	1.998	3.787	3.204	8.110	2.283
Jul-01	292.843	163.604	46.560	30.215	4.342	29.746	4.069	3.448	0	26.287	465	8.976	7.651	123.070	13.003	3.201	45.191	24.591	911	69.019	9.602	3.621	6.447	59.932	22.114	6.838	2.890	5.855	4.337	6.164
Ago-01	508.837	374.638	7.233	71.252	78.070	16.910	3.065	0	15.655	40.761	4.101	17.229	15.815	209.999	8.984	14.537	43.928	73.752	1.343	31.697	9.068	9.816	12.054	22.414	12.916	9.358	0	8.311	9.642	3.748
Sep-01	572.137	723.011	57.765	22.787	1.029	23.161	9.351	0	11.374	9.958	7.549	7.807	11.417	57.001	16.929	11.949	21.048	74.146	4.646	60.260	13.405	10.348	8.926	30.951	2.938	2.151	8.041	7.010	9.595	1.132
Oct-01	179.010	721.605	35.080	63.017	499	65.023	12.250	0	1.619	2.369	7.314	5.801	7.148	10.674	14.378	8.464	15.662	66.690	731	48.501	10.849	3.339	1.804	6.018	6.062	390	2.824	0	9.585	1.137
Nov-01	184.815	402.459	36.073	44.846	299	30.416	13.041	0	5.268	1.554	10.809	46	623	10.604	16.054	1.207	0.764	33.575	13.850	58.045	11.621	0	278	9.833	0	263	3.335	278	4.870	0
Dic-01	329.787	372.452	24.810	24.311	161	21.003	13.806	0	9.078	83	9.763	0	1.199	0	17.888	697	5.224	23.951	106	58.464	12.022	118	1.857	9.845	178	264	2.776	1.782	319	1.342
Ene-02	358.332	558.358	50.775	37.185	0	34.372	0	12.650	5.100	203	494	22.375	6.791	32.748	3.548	4.494	40.549	50.249	0	43.047	7.128	3.057	3.599	1.799	5.173	2.877	3.284	2.871	2.787	5.849
Feb-02	214.910	631.376	109.776	64.040	17.013	38.709	1.246	13.210	1.926	101.671	11.922	20.493	10.315	59.582	1.998	7.851	78.092	47.781	0	77.189	17.229	4.021	6.443	47.446	23.831	9.504	9.318	4.154	1.393	0
Mar-02	681.345	582.158	129.490	71.582	2.961	14.189	19.490	34.547	8.049	7.295	2.293	21.028	15.851	105.655	10.956	13.041	103.030	30.869	964	48.236	4.654	9.783	13.183	44.004	28.997	11.693	18.605	9.230	17.381	5.479
Abr-02	617.020	693.150	73.759	71.824	7.249	50.203	3.672	6.709	5.591	10.441	1.668	8.112	19.703	48.822	6.048	12.149	87.744	165.060	663	51.931	12.763	10.291	7.227	27.988	23.830	12.377	7.663	6.079	3.997	4.645
May-02	547.009	671.662	115.166	92.476	2.142	131.434	9.416	4.788	7.748	16.703	1.974	10.996	9.560	37.225	15.768	10.131	49.787	167.184	16.171	67.323	7.343	6.321	5.059	14.552	15.210	12.638	12.670	4.225	0	2.231
Jun-02	344.961	737.191	624	43.129	46.497	49.463	3.868	236	1.853	9.095	696	7.766	10.079	31.321	6.563	0.338	39.908	147.928	249	38.194	0	24	6.434	19.869	10.308	2.377	4.628	4.303	9.972	3.155
Jul-02	364.004	804.454	69.178	63.171	8.304	37.023	8.979	4.249	0	30.810	666	11.612	9.464	148.717	15.636	4.068	43.611	47.535	1.114	69.466	12.559	2.351	7.970	71.923	27.216	8.913	3.553	7.281	5.351	2.203
Ago-02	709.853	468.429	8.000	69.328	66.826	21.248	3.072	0	23.750	57.785	6.193	21.507	19.716	200.007	11.157	10.211	64.530	91.855	1.663	19.614	11.233	12.209	14.091	27.729	16.030	11.629	0	10.339	11.993	4.703
Sep-02	718.024	903.152	72.184	28.497	1.981	32.761	11.693	0	14.290	11.327	9.169	10.021	14.198	71.313	21.074	14.932	27.360	92.630	5.677	75.971	10.850	12.829	11.073	33.045	3.643	2.686	10.040	9.631	1.605	6.349
Oct-02	223.661	902.572	47.647	78.669	876	81.129	18.432	0	2.376	2.708	9.160	3.811	8.648	13.314	18.079	6.831	19.044	63.317	918	68.780	13.543	4.141	2.261	6.171	10.103	601	3.537	0	12.025	1.514
Nov-02	230.819	500.516	43.553	55.815	376	43.709	32.650	0	7.650	1.707	18.963	80	779	2.582	20.156	1.511	12.212	46.269	17.092	72.720	14.502	0	348	12.134	0	442	4.183	348	5.569	0
Dic-02	411.591	341.059	31.035	31.332	165	13.821	16.120	0	6.222	150	11.015	0	1.513	0	22.471	1.213	8.534	30.025	133	73.218	16.009	144	2.330	12.011	225	444	3.483	2.210	400	1.778



CALCULOS PRONOSTICOS CON METODO WINTERS a = 0.4 β = 0.4 γ = 0.4

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	174.665	512.019	89.225	66.833	14.659	28.661	1.057	10.625	1.351	65.237	10.146	15.710	8.432	66.296	1.652	9.472	62.534	39.155	0	63.271	14.259	3.976	5.312	39.651	16.669	6.069	7.671	3.416	1.154	0
Mar-01	473.930	469.284	112.349	56.658	2.493	11.726	13.716	26.578	4.064	6.160	1.949	15.868	13.019	69.725	9.255	10.493	62.653	25.461	570	37.871	3.792	6.072	10.609	37.600	21.264	9.676	15.701	7.095	14.392	4.643
Abr-01	550.459	477.148	61.026	55.202	1.921	29.809	3.792	6.762	3.664	16.415	1.405	6.834	12.945	38.174	4.144	10.072	70.594	135.189	666	42.370	10.040	8.450	5.979	23.372	17.216	10.209	6.273	5.013	4.123	3.601
May-01	442.241	378.579	83.456	73.122	1.833	102.219	2.070	3.769	5.374	14.117	1.652	8.405	7.267	22.535	8.323	40.026	132.028	13.950	342	54.697	5.876	5.122	4.550	12.111	15.913	10.440	10.441	3.401	0	1.716
Jun-01	277.239	590.605	2.00	34.007	38.657	29.709	3.126	150	1.116	7.499	499	6.009	8.123	25.699	8.358	8.150	32.047	119.727	200	30.603	0	19	5.240	16.481	8.421	1.946	3.779	3.499	6.093	2.462
Jul-01	255.183	161.448	46.533	50.166	4.331	20.743	4.044	3.469	0	25.257	451	9.316	7.643	129.659	12.609	3.768	35.136	38.259	597	33.264	9.931	3.816	6.448	63.733	22.104	6.607	3.878	5.654	4.327	5.145
Ago-01	667.755	374.228	7.250	71.105	12.697	10.884	2.952	0	19.691	46.701	4.174	17.424	10.616	209.173	8.049	14.627	43.926	73.629	1.938	31.822	8.883	6.803	12.019	22.369	12.911	9.337	0	8.300	9.024	8.760
Sep-01	571.370	322.034	57.746	22.706	1.027	26.182	9.322	0	11.329	9.099	7.325	8.005	11.347	87.037	10.817	11.928	21.849	74.028	4.533	60.603	13.434	10.335	9.817	30.451	7.837	2.151	8.037	7.552	1.443	5.029
Oct-01	178.892	221.256	38.981	62.661	459	64.019	13.555	0	1.916	2.158	7.300	3.662	7.144	10.813	14.349	6.451	16.952	60.549	729	46.508	10.835	3.337	1.804	4.816	8.061	400	2.923	0	0.059	1.135
Nov-01	184.815	402.272	35.019	44.934	297	35.405	20.816	0	6.205	1.354	19.045	48	623	9.057	10.035	1.297	9.765	38.910	13.544	58.034	11.613	0	278	3.629	0	353	3.135	278	4.485	0
Dic-01	328.723	373.437	24.833	24.309	134	11.053	12.693	0	8.074	60	8.761	0	1.307	0	17.654	597	5.224	23.959	100	58.446	12.820	115	1.897	9.645	179	354	2.776	1.762	910	1.437
Ene-02	355.920	390.312	60.069	69.741	0	73.960	0	12.774	3.067	383	487	22.396	6.761	22.221	3.495	4.381	46.500	53.850	0	42.690	7.054	3.022	3.489	1.785	5.169	2.876	3.276	2.897	3.765	6.030
Feb-02	216.215	633.875	109.714	84.272	17.705	38.901	1.258	13.656	1.649	101.873	12.016	20.482	10.341	79.854	1.976	7.975	76.021	47.558	0	77.593	17.406	4.834	6.462	47.540	20.548	8.656	9.351	4.187	1.959	0
Mar-02	669.935	683.669	133.697	72.174	2.813	13.192	16.041	34.688	5.665	7.208	2.009	21.019	16.851	105.057	11.036	13.111	103.019	31.081	667	46.413	4.625	8.700	15.160	44.164	25.472	11.035	18.274	9.016	17.335	5.011
Abr-02	679.230	594.793	75.794	71.609	2.255	60.277	2.663	8.552	6.405	18.041	1.662	9.110	15.813	45.693	4.958	12.197	87.258	165.359	666	62.076	12.287	10.219	7.232	27.501	20.638	12.219	7.559	6.087	4.576	5.901
May-02	647.549	972.549	116.213	92.933	2.181	131.533	8.436	4.602	7.760	16.703	1.978	10.906	8.950	27.215	10.758	10.178	40.780	161.206	10.201	67.402	7.353	6.209	6.568	14.411	19.213	14.037	12.673	4.278	0	2.221
Jun-02	344.407	737.433	921	43.132	19.606	69.603	3.760	236	1.553	9.035	496	7.765	10.220	31.327	8.505	8.339	39.395	147.854	240	38.304	0	24	6.452	19.862	10.286	2.127	4.629	4.364	9.624	3.189
Jul-02	344.147	794.417	69.434	53.169	5.302	97.998	8.076	4.391	0	30.810	490	11.912	9.403	148.108	18.661	8.005	37.841	1.119	0	64.435	12.701	4.260	9.076	71.912	27.218	9.843	3.527	7.200	5.260	7.602
Ago-02	709.178	468.219	9.064	49.301	66.626	21.210	3.666	0	20.193	67.765	8.185	21.955	19.710	259.911	11.146	18.205	64.897	91.918	1.669	39.491	11.215	12.701	14.991	27.793	16.502	11.620	0	10.356	11.978	6.781
Sep-02	714.650	903.209	72.176	23.487	1.284	32.749	11.699	0	13.377	11.337	0.170	10.022	14.183	71.232	21.055	14.933	27.301	92.998	5.671	70.822	16.617	12.800	11.019	36.034	3.642	2.586	10.038	8.028	1.804	6.347
Oct-02	223.809	902.223	47.022	78.659	576	81.100	18.416	0	3.374	2.208	0.171	4.611	8.045	13.399	18.011	8.629	10.044	61.359	917	60.746	13.674	4.160	2.260	6.169	10.107	531	3.635	0	12.020	1.418
Nov-02	231.408	603.111	42.693	56.972	374	44.122	33.502	0	6.461	1.705	18.927	60	741	2.883	20.152	1.514	12.212	48.224	17.048	72.693	14.554	0	348	12.113	0	443	4.183	348	5.006	0
Dic-02	411.490	341.012	31.035	30.327	169	13.819	16.111	0	8.220	169	11.000	0	1.613	0	22.491	1.213	0.634	30.016	133	73.184	16.002	144	2.330	12.010	226	444	3.483	2.210	400	1.769

CALCULOS PRONOSTICOS CON METODO WINTERS a = 0.4 β = 0.4 γ = 0.9

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	176.761	517.336	89.660	67.108	19.154	29.176	1.066	10.433	1.419	65.269	10.308	15.885	8.503	66.622	1.652	9.528	62.578	39.501	0	64.304	14.507	4.002	5.354	39.904	17.006	6.075	7.709	3.448	1.168	0
Mar-01	476.340	471.695	112.491	56.846	2.504	11.814	13.857	26.672	4.102	6.181	1.984	15.877	13.049	69.980	9.349	10.555	62.635	25.578	576	38.111	3.821	6.100	10.615	37.754	21.284	9.679	15.225	7.113	14.471	4.639
Abr-01	550.949	477.560	61.030	55.212	1.922	29.824	3.794	6.769	3.666	16.415	1.406	6.843	12.948	38.185	4.147	10.074	70.594	135.220	666	42.383	10.046	8.457	5.978	23.378	17.217	10.208	6.274	5.015	4.125	3.602
May-01	441.180	777.003	83.382	73.011	1.834	102.059	2.031	3.732	5.351	14.117	1.644	8.408	7.267	22.535	12.088	8.306	40.029	191.744	13.870	54.429	5.954	5.163	4.551	12.091	15.906	10.431	10.433	3.456	0	1.714
Jun-01	276.342	687.152	729	34.004	38.395	28.809	3.100	197	1.108	7.499	496	6.011	8.109	25.695	8.324	8.149	32.051	119.341	204	30.601	0	19	5.227	16.420	8.415	1.945	3.775	3.490	6.064	2.455
Jul-01	253.979	163.643	46.487	50.016	4.312	23.023	4.001	3.477	0	25.257	490	9.353	7.625	129.293	12.535	3.777	35.149	39.191	600	33.469	9.874	3.597	6.451	63.360	22.088	6.606	3.878	5.638	4.311	6.122
Ago-01	665.923	373.097	7.254	71.017	12.693	10.841	2.930	0	19.613	46.760	4.144	17.432	10.765	208.935	8.058	14.533	43.931	73.421	1.930	31.405	8.810	6.782	12.012	22.335	12.903	9.355	0	8.281	9.593	8.772
Sep-01	569.035	320.977	57.711	22.732	1.024	26.160	9.302	0	11.279	9.099	7.298	8.011	11.331	86.928	10.732	11.928	21.851	73.991	4.511	60.492	13.391	10.321	9.803	30.401	7.834	2.151	8.031	7.549	1.439	5.031
Oct-01	178.552	220.219	38.957	62.622	458	64.004	13.577	0	1.911	2.158	7.276	3.662	7.137	10.800	14.303	6.448	16.953	60.462	727	46.417	10.811	3.331	1.802	4.810	8.059	400	2.921	0	0.979	1.135
Nov-01	184.701	401.699	35.013	44.919	297	35.393	20.809	0	6.208	1.354	19.021	48	623	9.056	10.014	1.296	9.766	38.890	13.534	57.991	11.601	0	278	3.624	0	353	3.133	278	4.485	0
Dic-01	328.663	373.152	24.808	24.307	134	11.051	12.703	0	8.072	60	8.760	0	1.307	0	17.677	597	5.224	23.953	100	58.434	12.817	115	1.897	9.644	179	354	2.776	1.762	910	1.437
Ene-02	355.665	389.929	60.055	69.680	0	73.923	0	12.681	3.066	383	472	22.401	6.712	22.039	3.410	4.343	46.560	53.916	0	42.660	6.951	3.004	3.481	1.785	5.164	2.874	3.264	2.893	3.735	5.982
Feb-02	216.741	640.238	103.907	84.654	17.697	37.105	1.373	13.565	1.660	101.877	12.202	20.463	10.358	80.312	2.008	7.918	78.002	48.287	0	78.282	17.669	4.838	6.483	47.852	20.472	9.811	9.353	4.187	1.989	0
Mar-02	668.971	688.608	139.666	72.364	2.809	16.254	16.729	34.467	6.008	7.208	2.335	21.009	16.931	109.401	11.149	13.100	103.001	31.920	674	46.110	4.609	9.000	13.227	44.313	25.409	11.039	18.265	9.130	17.425	5.002
Abr-02	681.497	596.603	75.833	71.765	2.663	59.491	2.634	8.597	6.429	18.041	1.676	9.105	15.854	49.812	4.993	12.229	87.728	165.832	670	57.288	12.347	10.237	7.241	27.662	20.651	12.231	7.576	6.101	4.593	5.893
May-02	648.412	974.631	116.262	93.027	2.188	131.602	8.467	4.608	7.772	16.704	1.985	10.904	8.954	27.299	10.851	10.180	40.777	161.464	10.253	67.535	7.370	6.312	6.581	14.457	19.210	14.049	12.680	4.282	0	2.223
Jun-02	344.691	737.650	921	43.142	19.599	69.617	3.781	236	1.554	9.035	497	7.765	10.232	31.333	8.509	8.338	39.505	148.001	240	38.231	0	24	6.454	19.877	10.283	2.127	4.627	4.365	9.626	3.189
Jul-02	354.065	804.337	69.828	53.149	5.300	97.943	8.078	4.393	0	30.810	490	11.913	9.403	148.108	18.662	8.004	37.842	1.119	0	64.490	12.745	4.249	9.077	71.893	27.218	9.842	3.526	7.201	5.260	7.602
Ago-02	708.926	467.603	9.052	49.297	66.495	21.227	3.667	0	20.165	67.765	8.179	21.910	19.701	259.736	11.150	18.195	64.938	91.795	1.669	39.483	11.202	12.703	14.979	27.716	16.502	11.620	0	10.352	11.979	6.781
Sep-02	714.042	902.550	72.160	23.471	1.282	32.715	11.648	0	14.295	11.337	0.162	10.023	14.176	71.233	21.054	14.932	27.301	92.997	5.671	70.845	16.705	12.812	11.018	36.019	3.642	2.586	10.039	9.022	1.802	6.343
Oct-02	223.715	901.547	47.013	78.628	576	81.051	18.388	0	3.371	2.208	0.166	4.611	8.041	13.397	18.011	8.629	10.044	61.361	917	60.747	13.668	4.158	2.259	6.168	10.101	531	3.635	0	12.018	1.417
Nov-02	231.270	602.531	41.786	56.950	374	44.102	33.488	0	6.462	1.705	18.902	60	741	2.882	20.152	1.513	12.212	48.229	17.028	72.692	14.541	0	348	12.108	0	443	4.182	348	5.003	0
Dic-02	411.329	341.782	31.038	30.329	169	13.816	16.098	0	8.216	169	11.000	0	1.613	0	22.487	1.213	0.634	30.008	133	73.184	16.005	144	2.329	12.009	226	444	3.483	2.209	400	1.769

CALCULOS PRONOSTICOS CON METODO WINTERS a = 0.4 β = 0.9 γ = 0.1

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	173.478	508.581	83.669	60.348	14.554	28.239	1.051	10.731	1.374	65.284	10.000	15.726	8.403	66.014	1.629	9.418	62.620	39.016	0	61.723	14.114	3.957	5.287	39.784	16.945	6.068	7.653	3.401	1.147	0
Mar-01	471.766	467.837	112.597	56.717	2.481	11.705	13.692	27.161	4.028	6.116	1.934	15.928	12.952	68.928	9.159	10.791	62.592	25.329	567	37.636	3.764	6.047	10.648	37.546	21.164	9.638	15.130	7.049	14.292	4.650
Abr-01	548.287	477.607	61.022	55.697	1.928	30.405	3.804	6.820	3.654	16.117	1.375	7.049	12.859	37.628	4.073	9.974	70.646	134.231	651	42.118	9.901	8.350	5.915	22.810	17.006	10.100	6.211	4.953	4.075	3.581
May-01	440.627	780.908	83.466	73.166	1.842	102.469	2.049	3.809	5.305	13.993	1.665	8.691	7.233	22.121	12.276	8.207	40.061	190.913	13.770	54.252	5.922	5.103	4.524	11.785	15.819	10.397	10.293	3.419	0	1.702
Jun-01	276.275	691.218	740	33.642	37.224	29.769	3.023	192	1.101	7.230	397	6.230	8.048	23.103	8.247	8.085	32.071	116.065	199	33.031	0	19	5.159	15.830	8.241	1.908	3.714	3.452	7.054	2.035
Jul-01	251.677	163.973	46.167	50.866	4.160	20.458	4.507	3.693	0	24.423	392	9.660	7.676	118.293	12.378	3.242	35.162	37.958	651	36.819	9.862	3.470	6.356	57.010	21.676	6.760	3.853	4.293	5.311	
Ago-01	667.904	376.554	7.293	73.038	13.369	12.187	2.994	0	18.930	49.720	4.112	17.853	10.750	208.654	8.662	14.518	44.002	73.388	1.919	31.399	8.593	6.732	11.916	21.964	12.764	9.264	0	8.247	9.544	3.628
Sep-01	567.904	324.721	57.418	22.818	1.019	26.401	9.278	0	11.333	8.961	7.263	8.109	11.332	86.768	10.778	11.914	21.859	74.009	4.506	60.661	13.446	10.309	9.781	30.291	7.821	2.140	8.002	7.515	1.439	5.128
Oct-01	179.027	227.014	39.076	63.095	459	63.657	13.559	0	1.920	2.165	7.323	3.653	7.146	10.670	14.393	6.459	16.943	60.691	722	46.557	10.855	3.338	1.803	4.818	8.058	400	2.921	0	0.938	1.128
Nov-01	184.965	402.008	34.977	44.788	295	35.549	20.837	0	6.203	1.360	19.156	48	622	9.065	10.132	1.298	9.748	38.883	13.551	58.117	11.639	0	278	3.635	0	354	3.141	278	4.481	0
Dic-01	328.761	373.642	24.771	24.187	135	11.016	12.684	0	8.091	60	8.827	0	1.309	0	17.694	597	5.214	23.963	107	58.810	12.846	116	1.893	9.617	180	353	2.784	1.760	920	1.435
Ene-02	355.418	390.597	60.160	69.733	0	73.900	0	12.639	3.108	383	498	22.149	6.801	22.403	3.495	4.418	46.482	53.929	0	43.109	7.140	3.046	3.518	1.807	5.194	2.897	3.294	2.876	3.797	6.012
Feb-02	214.451	632.976	109.828	84.795	17.744	38.922	1.385	13.631	1.631	102.111	11.837	20.332	10.329	79.697	1.959	7.979	77.554	47.631	0	77.290	17.233	4.832	6.459	47.716	20.556	8.626	9.340	4.183	1.957	0
Mar-02	662.869	682.507	133.903	71.644	2.814	13.136	16.008	34.726	5.666	7.208	2.004	20.973	16.844	105.033	11.019	13.112	102.997	31.667	666	46.418	4.613	8.701	15.163	44.228	25.525	11.052	18.309	9.017	17.339	5.010
Abr-02	670.607	595.009	75.956	71.665	2.257	60.294	2.659	8.602	6.395	18.113	1.660	9.135	15.818	45.761	4.958	12.216	87.580	165.624	665	62.078	12.285	10.231	7.233	27.502	20.653	12.218	7.557	6.092	4.581	5.902
May-02	648.851	975.110	116.654	93.231	2.185	131.612	8.430	4.597	7.774	16.773	1.979	10.944	8.933	27.322	10.758	10.168	40.802	162.256	10.201	67.408	7.354	6.203	6.565	14.448	19.234	14.060	12.680	4.280	0	2.220
Jun-02	345.680	740.259	924	43.319	19.810	69.723	3.750	241	1.570	9.041	497	7.782	10.208	31.328	8.515	8.329	40.030	149.478	239	38.374	0	24	6.464	19.906	10.308	2.127	4.629	4.363	9.653	3.189
Jul-02	355.451	806.197	69.774	53.237	5.316	97.932	8.087	4.429	0	30.811	497	11.905	9.416	148.139	18.618	4.979	37.839	1.120	0	64.551	12.690	4.260	9.091	72.110	27.218	9.843	3.505	7.224	5.257	7.596
Ago-02	712.143	470.247	9.081	49.712	66.460	21.319	3.660	0	18.620	67.999	5.200	22.077	19.770	260.832	11.137	18.217	65.073	92.192	1.667	39.654	11.265	12.750	13.010	27.903	16.556	11.649	0	10.376	12.024	6.784
Sep-02	716.622	905.109	72.349	23.555	1.287	32.839	11.702	0	13.746	11.346	0.165	10.049	14.217	71.496	21.119	14.958	27.387	92.828	5.687	70.927	16.654	12.850	11.049	36.114	3.649	2.591	10.058	9.051	1.806	6.356
Oct-02	223.977	902.579	47.014	78.687	576	81.128	18.439	0	3.372	2.206	0.163	4.611	8.046	13.391	18.011	8.629	10.045	61.353	917	60.742	13.675	4.160	2.260	6.169	10.108	531	3.635	0	12.023	1.419
Nov-02	231.101	602.424	43.716	56.985	374	44.090	33.504	0	6.460	1.699	18.924	60	740	2.879	20.152	1.514	12.213	48.183	17.044	72.614	14.541	0	348	12.093	0	442	4.174	348	5.002	0
Dic-02	410.651	341.201	30.852	30.299	169	13.789	16.068	0	8.229	169	11.000	0	1.610	0	22.480	1.213	0.636	29.994	133	73.006	16.008	144	2.324	11.992	229	445	3.474	2.209	399	1.769

SOFTWARE PROPIEDAD INTELECTUAL
PROHIBIDA SU COPIA Y VENTA

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.4 β = 0.5 γ = 0.4

Mes	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	174.695	812.035	89.228	68.653	14.952	28.001	1.067	10.625	1.501	85.257	10.140	16.210	8.439	68.259	1.662	6.472	62.604	30.185	0	62.271	14.259	3.970	5.312	39.894	10.668	8.009	7.671	3.419	1.164	0
Mar-01	472.536	466.579	112.319	59.777	2.465	11.810	13.541	27.139	4.037	6.116	1.621	16.078	12.975	88.142	9.169	10.764	82.597	25.255	564	37.717	9.773	8.000	10.857	37.297	21.161	9.837	15.128	7.652	14.315	4.686
Abr-01	647.164	476.103	60.900	55.676	1.876	39.339	2.189	6.047	3.611	16.116	1.263	7.009	12.643	57.607	4.059	9.058	70.653	131.038	531	47.010	9.990	6.338	5.907	22.878	17.000	10.099	6.207	4.901	1.057	3.835
May-01	435.990	777.767	93.409	73.076	1.775	104.295	6.785	3.895	5.823	19.686	1.691	6.859	7.217	22.050	12.664	5.197	40.666	139.814	13.091	54.018	5.892	5.691	4.814	11.730	15.606	10.264	10.272	3.410	0	1.797
Jun-01	278.449	630.016	740	34.676	37.091	39.671	3.001	191	1.055	2.330	334	6.240	8.023	23.012	6.214	5.071	32.074	118.351	168	30.604	0	18	6.146	15.858	8.236	1.008	3.710	3.444	7.933	2.530
Jul-01	200.987	103.707	48.531	50.835	4.180	30.585	4.788	3.563	0	24.429	392	9.859	7.570	118.120	12.334	3.238	35.164	37.938	878	55.402	9.840	3.466	6.353	56.942	31.659	6.785	2.931	5.278	4.256	6.394
Ago-01	567.776	378.739	7.289	72.009	10.381	17.183	3.902	0	10.922	45.720	4.110	17.854	16.747	206.648	8.854	14.418	44.092	73.169	1.315	31.684	6.969	6.730	11.645	21.908	12.764	9.254	0	8.238	9.641	3.955
Sep-01	672.402	724.012	67.021	72.004	1.620	28.414	6.209	0	11.335	6.981	7.303	8.107	11.936	68.709	16.831	11.020	21.859	74.049	4.612	69.787	13.458	10.313	8.765	30.218	2.631	2.140	8.003	7.648	1.439	5.120
Oct-01	178.222	722.659	39.082	63.073	460	69.193	12.335	0	1.924	2.169	7.337	3.893	7.150	10.628	14.421	8.454	19.912	60.654	733	48.637	10.870	3.540	1.800	4.918	6.006	490	2.922	0	9.607	3.139
Nov-01	165.065	407.323	31.084	44.500	200	15.294	29.884	0	5.290	1.309	16.181	46	624	2.068	10.153	1.210	9.748	23.553	13.072	59.175	11.693	0	279	9.858	0	354	3.341	278	4.465	0
Dic-01	328.832	223.147	21.723	24.193	136	11.016	12.015	0	5.664	60	8.834	0	1.293	0	18.039	970	5.214	21.002	107	54.830	12.853	116	1.883	9.629	160	355	2.733	1.767	370	1.426
Ene-02	355.892	269.485	40.381	55.333	0	29.467	0	12.654	3.070	300	490	22.170	9.271	22.321	3.513	4.323	40.493	50.974	0	42.720	7.060	3.000	3.460	1.761	5.197	2.895	3.297	2.984	2.777	5.683
Feb-02	218.876	620.483	109.659	84.080	17.643	35.772	1.270	13.677	1.042	102.114	12.121	20.316	10.362	50.233	1.031	7.600	77.514	48.071	0	77.764	17.467	3.816	6.483	47.890	20.816	8.832	8.164	4.179	1.494	0
Mar-02	661.625	634.597	123.631	77.108	2.627	19.176	10.135	34.692	6.816	7.239	2.331	23.901	16.915	106.335	11.078	19.148	101.083	31.154	671	48.631	4.837	9.767	13.217	46.352	23.647	11.666	10.371	9.340	17.390	6.013
Abr-02	680.481	605.815	75.950	71.777	2.260	60.331	2.067	6.812	8.052	16.113	1.055	9.121	15.850	45.809	4.671	12.227	87.976	165.212	687	52.162	12.305	10.340	7.250	27.587	29.703	12.318	7.550	6.162	2.965	4.938
May-02	648.931	974.664	116.848	83.203	2.187	131.883	9.421	4.897	6.963	19.773	1.976	11.046	8.931	27.311	18.704	10.164	48.093	162.918	16.166	67.495	7.358	6.321	5.691	14.443	19.283	12.659	12.718	4.238	0	2.220
Jun-02	348.221	339.208	929	43.263	48.848	49.872	3.779	241	1.367	9.041	490	7.755	10.009	31.393	8.557	8.353	49.696	146.304	249	35.261	0	24	6.449	19.912	10.966	2.288	4.643	4.316	9.042	3.164
Jul-02	364.965	294.533	60.784	53.373	3.307	37.783	6.068	4.452	0	30.911	490	11.971	9.803	146.978	18.578	4.078	43.191	47.654	1.113	40.639	12.369	4.391	7.584	15.648	27.803	6.842	2.764	7.987	6.720	7.029
Ago-02	711.837	469.829	9.091	69.003	58.782	21.327	3.673	0	10.613	67.936	8.187	22.079	19.750	280.703	11.197	15.206	85.074	82.123	1.664	39.811	11.246	12.343	15.091	27.811	18.087	11.283	0	10.339	12.914	4.761
Sep-02	716.335	905.458	72.120	28.560	1.786	32.628	11.695	0	13.746	11.340	8.160	10.019	14.214	71.439	21.101	14.965	27.392	92.806	5.654	70.001	16.867	12.848	11.013	38.107	3.649	2.631	10.059	9.648	1.205	5.384
Oct-02	224.013	902.713	47.618	78.699	976	81.149	19.444	0	2.378	2.700	9.182	4.811	8.646	13.313	18.040	6.830	19.036	63.371	916	60.784	13.566	5.161	2.281	6.178	10.009	581	3.539	0	12.025	1.419
Nov-02	231.181	602.537	43.720	55.097	374	44.072	33.591	0	8.623	1.669	18.858	60	780	2.850	20.161	1.512	12.184	58.153	17.058	72.646	14.849	0	348	12.556	0	442	4.174	348	8.601	0
Dic-02	410.791	541.314	39.984	39.269	169	13.793	16.119	0	8.429	169	11.000	0	1.510	0	22.462	1.210	8.518	29.965	193	73.091	16.044	144	3.329	11.993	225	443	3.474	2.206	499	1.765

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.6 β = 0.9 γ = 0.9

Mes	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	176.781	817.008	88.488	67.168	16.164	29.178	1.009	10.451	1.419	85.262	10.308	16.035	8.609	68.993	1.692	6.558	62.576	32.061	0	64.204	14.607	4.003	5.254	40.304	17.096	8.015	7.760	3.428	1.168	0
Mar-01	473.844	469.535	112.290	59.878	2.473	11.836	13.629	27.031	4.057	6.117	1.652	16.019	12.957	88.393	9.217	10.818	82.879	25.432	567	37.847	9.788	8.319	5.893	22.825	19.989	10.099	6.200	4.949	4.053	3.648
Abr-01	648.232	474.456	60.937	55.448	1.857	39.225	2.181	6.031	3.589	16.116	1.350	7.051	12.610	57.454	4.027	9.044	70.652	131.028	532	47.026	9.990	6.338	5.907	22.878	17.000	10.099	6.207	4.901	1.057	3.835
May-01	436.405	778.306	93.265	73.656	1.783	103.718	6.701	3.839	5.819	19.687	1.673	6.762	7.191	21.853	12.527	5.151	40.674	139.839	12.928	53.818	5.840	5.671	4.496	11.683	15.588	10.260	10.252	3.398	0	1.750
Jun-01	274.019	637.065	733	34.461	36.864	39.612	2.965	184	1.055	2.329	349	6.214	8.009	24.938	6.196	5.062	32.080	117.814	190	30.507	0	18	6.130	15.829	8.226	1.007	3.704	3.432	7.889	2.521
Jul-01	200.185	103.226	48.497	50.745	4.176	30.351	4.755	3.576	0	24.429	389	9.872	7.557	117.648	12.299	3.232	35.157	37.849	873	55.293	9.798	3.459	6.341	56.828	31.650	6.784	2.929	5.267	4.244	6.392
Ago-01	567.483	378.561	7.282	72.004	10.315	17.127	3.858	0	10.909	45.720	4.105	17.865	16.743	206.661	8.847	14.510	44.093	73.337	1.313	31.654	6.953	6.727	11.639	21.902	12.762	9.254	0	8.243	9.638	3.957
Sep-01	672.568	723.702	67.040	72.042	1.621	28.453	6.211	0	11.355	6.981	7.310	8.100	11.943	68.644	16.838	11.009	21.868	74.116	4.621	69.788	13.479	10.321	8.801	30.235	2.622	2.140	8.005	7.654	1.441	5.120
Oct-01	179.022	723.743	39.150	63.135	460	69.183	12.360	0	1.929	2.169	7.352	3.892	7.167	10.641	14.408	8.462	19.942	60.749	735	48.732	10.899	3.545	1.808	4.924	6.006	490	2.924	0	9.622	3.140
Nov-01	165.325	409.017	31.090	44.645	200	15.300	29.883	0	5.302	1.309	16.224	46	625	2.068	10.202	1.212	9.748	23.639	13.707	59.699	11.678	0	279	9.858	0	354	3.343	278	4.461	0
Dic-01	329.184	223.256	21.727	24.204	136	11.024	12.014	0	5.669	60	8.847	0	1.310	0	18.039	971	5.214	21.016	107	54.830	12.854	116	1.884	9.624	160	355	2.735	1.768	331	1.426
Ene-02	355.484	269.722	40.377	55.329	0	29.465	0	12.654	3.067	300	476	22.205	9.221	22.103	3.427	4.314	40.513	50.984	0	42.699	6.941	3.000	3.470	1.778	5.176	2.884	3.274	2.939	2.744	5.685
Feb-02	351.692	597.553	93.410	85.669	18.079	37.028	1.295	13.465	1.063	102.116	12.353	20.314	10.419	50.852	2.027	7.651	77.520	49.445	0	78.533	17.663	4.078	6.621	48.164	20.651	9.833	9.383	4.295	1.417	0
Mar-02	688.198	687.576	139.838	72.385	2.947	16.218	10.381	34.639	6.849	7.239	2.351	23.848	16.873	106.647	11.218	19.204	103.063	31.318	679	48.870	4.878	9.832	13.270	46.557	23.557	11.670	10.407	9.170	17.454	6.017
Abr-02	681.971	597.273	74.021	71.823	2.298	60.423	2.080	6.828	8.056	16.113	1.073	9.131	15.872	45.859	4.694	12.242	87.869	169.031	670	52.355	12.348	10.258	7.250	27.628	29.712	12.320	7.526	6.111	4.999	4.564
May-02	648.193	973.956	116.617	83.165	2.185	131.801	9.405	4.912	6.948	19.773	1.973	11.046	8.976	27.294	18.750	10.198	48.095	162.844	16.163	67.447	7.359	6.318	5.690	14.435	19.280	12.657	12.716	4.238	0	2.223
Jun-02	344.453	337.650	925	43.222	48.422	49.885	3.759	243	1.362	9.041	493	7.800	10.049	31.333	8.528	8.331	49.699	146.812	249	35.164	0	24	6.439	19.881	10.961	2.288	4.639	4.308	9.029	3.162
Jul-02	364.182	294.456	60.721	53.282	3.291	37.729	6.058	4.466	0	30.911	493	11.974	9.805	146.706	18.550	4.065	43.254	47.659	1.107	40.529	12.335	4.384	7.582	15.638	27.791	6.841	3.551	7.980	5.348	7.019
Ago-02	710.569	469.201	9.087	69.050	58.806	21.303	3.661	0	10.665	67.950	8.160	22.083	19.783	280.406	11.133	15.238	85.077	82.068	1.660	39.810	11.222	12.331	15.017	27.788	18.093	11.284	0	10.350	11.997	4.777
Sep-02	718.004	905.551	72.131	28.552	1.786	32.618	11.682	0	13.746	11.340	8.181	10.055	14.210	71.403	21.090	14.950	27.382	92.768	5.678	70.001	16.848	12.844	11.009	38.095	3.649	2.631	10.057	9.638	1.207	5.382
Oct-02	224.075	902.552	47.618	78.709	976	81.163	19.454	0	2.378	2.700	9.182	4.811	8.646	13.316	18.050	6.829	19.036	63.381	916	60.815	13.570	5.161	2.281	6.178	10.009	581	3.539	0	12.025	1.419
Nov-02	231.323	602.831	43.726	55.018	374	44.083	33.579	0	8.630	1.669	18.863	60	780	2.844	20.166	1.513	12.184	58.224	17.077	72.701	14.859	0	348	12.561	0	442	4.176	348	8.604	0
Dic-02	411.028	541.595	39.984	39.277	169	13.799	16.132	0	8.433	169	11.009	0	1.510	0	22.476	1.211	8.518	29.976	193	73.144	16.054	144	3.329	11.995	225	443	3.475	2.206	499	1.765

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.8 β = 0.1 γ = 0.1

Mes	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	173.474	908.551	89.969	68.348	14.834	28.729	1.051	10.781	1.374	85.284	10.000	16.725	8.403	68.914	1.629	6.429	62.629	30.619	0	63.783	14.114	3.937	5.297	39.799	10.648	8.005	7.653	3.401	1.147	0
Mar-01	470.966	467.771	112.370	55.913	2.437	11.850	13.344	27.449	4.006	6.005	1.615	16.163	12.924	87.168	9.053	10.715	82.297	25.253	560	37.537	9.750	7.954	10.797	36.920	21.043	9.822	15.065	7.612	14.217	4.691
Abr-01	648.469	477.247	61.018	56.890	1.879	39.498	2.211	6.039	3.636	16.092	1.270	7.005	12.653	57.658	4.077	9.072	70.633	131.297	533	47.138	9.990	6.339	5.918	22.980	16.997	10.093	6.207	4.904	4.076	3.865
May-01	441.921	760.606	93.481	73.714	1.813	103.620	6.683	3.820	5.804	19.697	1.694	6.864	7.205	22.028	12.623	5.153	40.681	139.788	13.090	54.020	5.889	5.691	4.814	11.730	15.606	10.264	10.272	3.410	0.085	2.483
Jun-01	277.692	661.619	740	34.244	38.412	39.048	3.128	187	1.147	2.440	490	6.092	8.023	23.003	6.371	5.183	32.041	119.289	200	30.600	0	18	6.146	15.858	8.236	1.008	3.709	3.450	8.085	2.483
Jul-01	201.192	103.657	48.566	50.164	4.360	29.748	4.930	3.432	0	24.429	407	9.916	7.562	118.093	12.374	3.297	35.151	38.004	916	55.473	9.672	3.599	6.353	56.942	31.659	6.785	2.931	5.273	4.246	6.418
Ago-01	567.776	378.691	7.297	71.168	10.442	16.842	3.912	0	10.766	47.437	4.212	17.877	16.812	211.612	9.091	14.771	44.095	74.841	1.364	31.693	6.972	6.699	12.189	22.737	13.048	9.418	0	8.274	9.753	3.919
Sep-01	672.695	726.661	67.412	72.053	1.649	28.618	6.215	0	11.429	6.913	7.445	8.378	12.179	70.728	16.971	9.455	15.513	66.859	740	69.718	10.003	3.383	1.819	5.005	6.146	451	2.847	0	9.586	3.118
Oct-01	179.299	720.591	39.031	62.992	464	69.205	12.341	0	1.933	2.169	7.445	3.878	7.179	10.728	14.371	8.455	19.913	60.659	740	48.718	10.883	3.543	1.809	4.919	6.006	490	2.923	0	9.609	3.139
Nov-01	165.337	401.602	31.094	44.356	204	15.308	29.892	0	5.314	1.309	16.316	47	627	2.065	10.232	1.218	9.751	23.626	13.040	59.696	11.688	0	280	9.858	0	354	3.342	278	4.464	0
Dic-01	329.022	222.403	21.800	24.116	137	10.956	12.000	0	5.677	61	8.913	0	1.314	0	18.130	975	5.221	21.091	108	54.697	12.838	116	1.874	9.782	161	355	2.803	1.776	0.852	1.434
Ene-02	355.909	269.156	40.383	55.333	0	29.463	0	12.656	3.123	300	502	21.992	9.328	22.540	3.599	4.429	40.548	50.939	0	43.540	7.169	3.041	3.554	1.818	5.220	2.905	3.315	2.992	2.813	5.681
Feb-02	211.089	631.518	109.816	83.816	17.567	36.417	1.268	13.646	1.034	102.977	12.105	20.207	10.309	50.527	1.005	7.566	77.506	48.017	0	77.835	17.464	4.384	6.496	46.142	20.711	9.877	9.384	4.182	0.903	0
Mar-02	661.597	634.933	123.625	77.077	2.628	19.095	10.104	34.912	6.852	7.319	2.317	23.919	16.938	106.699	11.012	19.178	101.375	31.185	671	48.405	4.824	9.810	13.249	46.692	23.705	11.740	10.462	9.307	17.405	6.002
Abr-02	680.307	604.553	75.977	71.818	2.276	60.311	2.076	6.799	8.041	16.281	1.071	9.047	15.870	46.008	4.651	12.203	88.001	165.911	670	52.154	12.368	10.270	7.272	27.781	29.811	12.380	7.622	6.117	3.002	4.913
May-02	648.807	974.797	116.901	82.776	2.203	131.859	9.443	4.842	7.393	19.877	1.903	10.925	8.629	27.422	18.636	10.187	48.984	162.792	16.312	67.550	7.371	6.315	5.816	14.514	19.343	12.720	12.748	4.246	0.0	2.213
Jun-02	348.432	337.979	922	43.064	48.841	49.353	3.812	237	1.318	9.072	492	7.716	10.008	31.478	8.505	8.306	49.648	146.334	251	35.280	0	24	6.460	20.005	10.918	2.297	4.646	4.316	9.064	3.144
Jul-02	364.475	294.430	60.654	53.409	3.331	37.651	6.111	4.343	0	30.983	489	11.953	9.815	146.732	18.643	4.094	43.092	47.819	1.119	40.930	12.374	4.390	7.584	15.648	27.899	6.838	3.561	7.995	5.469	7.043
Ago-02	711.350	469.204	9.078	69.253	57.178	21.234	3.693	0	21.073	68.165	8.222	21.927	19.782	281.269	11.237	15.252	84.000	82.140	1.673	39.833	11.287	12.293	15.009	27.705	18.107	11.273	0	10.374	12.033	4.784
Sep-02	717.801	906.323	71.891	28.344	1.283	32.663	11.690	0	13.147	11.370	9.105	9.912	14.148	71.228	21.068	14.992	27.182	92.394	5.682	70.002	16.792	12.866	11.003	38.039	3.635	2.633	10.018	9.659	1.205	5.381
Oct-02	223.295	899.294	47.440	78.285	976	80.899	19.442	0	2.516	2.706	9.182	4.775	8.623	13.294	18.017	6.818	19.051	63.147	916	60.816	13.556	5.172	2.285	6.168	10.003	580	3.529	0	12.003	1.420
Nov-02	230.805	601.779	43.672	55.048	375	43.920	33.555	0	8.656	1.703	18.918	60	780	2.852	20.159	1.512	12.172	58.170	17.071	72.690	14.845	0	348	12.556	0	442	4.177	348	8.601	0
Dic-02	410.663	541.220	39.983	39.231	169	13.787	16.135	0	8.693	169	11.022	0	1.511	0	22.471	1.212	8.518	29.964	193	73.105	16.045	144	3.328	12.017	225	443	3.469	2.206	499	1.765

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.9 β = 0.1 γ = 0.4

Mes	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	174.685	612.039	86.959	66.893	14.992	28.931	1.067	10.625	1.391	85.257	10.146	16.710	8.439	66.220	1.052	6.572	63.004	23.163	0	61.221	14.299	3.970	5.312	39.841	18.668	6.078	7.671	3.418	1.154	0
Mar-01	470.833	467.731	112.273	66.914	2.437	11.600	13.346	27.442	4.006	6.005	1.915	16.182	12.925	87.471	9.054	10.736	82.928	29.233	568	37.830	3.750	7.694	10.788	36.971	31.043	9.692	15.065	7.013	14.218	4.691
Abr-01	546.125	476.953	61.669	56.668	1.678	32.417	2.203	6.015	3.822	16.097	1.375	2.655	12.854	97.024	4.072	9.628	70.035	150.224	553	49.106	9.557	9.345	5.612	22.853	10.695	10.093	6.206	4.958	4.073	3.265
May-01	441.649	780.127	93.164	73.653	1.811	103.469	8.674	3.824	9.346	13.887	1.632	8.559	7.266	83.353	12.939	8.265	92.041	119.790	205	30.839	0	19	2.230	16.378	8.368	1.935	3.767	3.459	8.081	2.479
Jun-01	277.937	691.234	749	34.231	29.396	39.006	3.122	187	1.116	7.450	400	6.052	8.120	84.602	5.155	6.151	35.122	33.388	914	58.968	9.975	3.878	6.466	53.004	22.151	6.317	2.884	5.871	4.344	6.141
Jul-01	292.885	163.776	20.650	59.147	4.397	29.738	4.991	3.439	0	29.321	497	9.317	7.650	121.148	12.731	5.295	35.122	77.213	1.363	31.970	9.069	9.855	12.164	22.730	13.047	9.446	0	6.126	9.729	3.734
Ago-01	571.447	375.001	7.378	71.137	79.362	16.636	3.092	0	16.774	47.437	4.240	12.378	16.837	211.749	9.083	14.797	44.056	77.213	1.363	31.970	9.069	9.855	12.164	22.730	13.047	9.446	0	6.126	9.729	3.734
Sep-01	572.393	721.037	87.637	22.516	1.045	28.636	9.209	0	11.420	9.213	7.468	2.647	11.350	87.539	16.272	7.178	92.041	119.790	205	30.839	0	19	2.230	16.378	8.368	1.935	3.767	3.459	8.081	2.479
Oct-01	178.220	720.142	88.018	62.386	468	64.076	19.631	0	1.593	2.186	7.443	3.278	7.178	10.745	14.591	5.454	15.914	66.869	745	48.888	10.899	3.382	1.819	5.004	8.148	404	5.447	0	9.685	1.118
Nov-01	186.281	491.784	34.991	44.527	304	34.909	27.164	0	9.511	1.381	13.356	57	6.627	2.004	18.120	975	5.221	21.556	106	53.678	12.691	110	1.873	9.220	181	558	2.407	1.779	322	1.416
Dic-01	329.641	273.192	24.806	24.112	137	10.953	19.053	0	5.114	61	8.669	0	1.214	0	0	0	42.451	40.581	59.170	0	42.451	7.084	3.018	3.816	1.809	5.221	2.904	3.555	2.877	2.782	5.942
Ene-02	356.645	569.611	60.681	65.140	0	78.186	0	12.584	3.003	360	17.279	20.169	10.408	80.607	2.013	7.648	77.978	48.205	0	78.186	17.578	4.876	6.670	48.349	20.739	9.882	9.465	4.269	1.414	0
Feb-02	216.435	837.739	103.803	93.064	18.650	38.673	1.888	13.523	1.888	102.660	3.330	20.812	19.643	160.724	11.064	13.181	103.276	31.170	872	46.436	4.628	9.810	13.254	44.666	29.707	11.741	18.469	5.369	17.122	5.541
Mar-02	643.860	583.123	130.747	71.782	2.642	15.071	16.123	34.911	5.845	7.819	1.071	6.047	16.878	48.093	4.050	12.262	88.092	165.890	678	52.147	12.393	10.393	7.271	27.276	20.841	12.390	7.622	6.113	9.062	4.918
Abr-02	880.302	884.737	76.979	71.497	2.775	50.008	2.677	8.800	5.015	18.281	1.889	10.936	8.045	27.417	16.801	10.198	40.584	162.564	16.300	47.844	7.308	6.334	5.016	14.553	10.317	2.387	4.645	4.318	9.662	5.143
May-02	548.837	973.110	116.449	92.764	2.662	131.032	8.483	4.618	7.357	16.917	1.889	7.716	10.057	31.474	6.593	6.359	30.948	148.311	281	38.272	0	23	0.455	23.003	27.208	9.339	3.581	7.004	9.364	7.773
Jun-02	344.609	737.756	933	10.992	28.621	49.345	3.810	897	1.829	0.072	499	7.716	10.057	31.474	6.593	6.359	23.853	47.813	1.118	58.016	12.871	3.892	7.001	72.264	27.208	9.339	3.581	7.004	10.377	12.031	4.787
Jul-02	364.417	894.208	90.831	63.032	5.332	37.646	6.108	4.349	0	20.993	498	11.859	9.497	149.618	16.616	3.073	43.853	87.813	1.118	58.016	12.871	3.892	7.001	72.264	27.208	9.339	3.581	7.004	10.377	12.031	4.787
Ago-02	711.091	469.094	9.078	63.354	97.193	21.232	3.692	0	21.081	58.185	8.220	21.928	19.780	281.270	11.204	18.281	84.660	92.139	1.673	33.810	11.255	12.353	19.044	27.908	18.107	11.573	0	10.377	12.031	4.787
Sep-02	712.713	900.214	71.880	28.342	1.385	32.899	11.692	0	2.547	2.706	9.180	4.775	8.922	13.493	18.013	6.618	10.881	83.139	916	58.697	10.769	12.895	10.999	38.699	3.836	2.890	10.017	9.608	1.601	6.307
Oct-02	223.370	899.168	47.435	78.283	876	80.653	19.439	0	0.668	1.703	18.044	60	780	2.531	20.154	1.512	12.172	46.189	17.008	72.582	14.538	0	348	12.118	0	442	4.176	348	5.000	0
Nov-02	230.903	891.732	43.871	55.648	375	43.911	33.840	0	0.664	100	11.020	0	1.811	0	22.497	1.212	6.519	29.981	193	73.097	16.048	144	2.328	12.017	225	444	3.480	2.207	400	1.781
Dic-02	410.823	841.191	30.969	30.220	169	19.768	16.131	0	0.664	100	11.020	0	1.811	0	22.497	1.212	6.519	29.981	193	73.097	16.048	144	2.328	12.017	225	444	3.480	2.207	400	1.781

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.9 β = 0.1 γ = 0.6

Mes	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	176.781	617.938	89.489	67.166	18.153	29.178	1.095	10.431	1.416	83.292	10.309	16.655	8.500	66.869	1.602	6.928	63.678	23.691	0	64.034	14.607	4.002	5.354	39.924	17.606	6.075	7.700	3.448	1.165	0
Mar-01	470.974	467.629	112.273	66.914	2.439	11.661	13.350	27.443	4.007	6.005	1.916	16.182	12.926	87.478	9.058	10.738	82.935	29.257	566	37.844	3.751	7.695	10.790	36.974	31.043	9.692	15.065	7.013	14.220	4.691
Abr-01	547.844	476.455	60.883	56.625	1.678	33.582	2.293	6.048	3.818	16.097	1.372	2.655	12.845	97.477	4.063	9.620	70.638	150.100	551	49.050	9.942	9.339	5.608	22.877	10.691	10.093	6.204	4.962	4.059	3.260
May-01	441.177	779.315	93.442	73.631	1.809	101.377	8.657	3.833	9.336	13.887	1.628	8.559	7.262	83.349	12.910	8.258	92.042	119.602	205	30.852	0	19	6.227	16.368	8.285	1.935	3.760	3.462	8.073	2.477
Jun-01	277.872	690.724	749	34.209	29.346	38.955	3.116	187	1.114	7.440	497	6.053	8.115	84.559	5.150	6.147	35.123	33.350	913	58.909	9.962	3.873	6.463	53.971	22.147	6.317	2.883	5.867	4.341	6.137
Jul-01	292.742	163.019	20.619	59.116	4.393	29.714	4.981	3.443	0	29.321	496	9.316	7.650	121.603	12.690	5.299	35.123	77.160	1.361	31.941	9.056	9.850	12.148	22.719	13.048	9.446	0	6.121	9.722	3.732
Ago-01	571.037	374.629	7.378	71.103	79.186	16.600	3.084	0	16.765	47.437	4.251	12.380	16.830	211.618	9.059	14.799	44.057	77.160	1.361	31.941	9.056	9.850	12.148	22.719	13.048	9.446	0	6.121	9.722	3.732
Sep-01	572.550	720.629	87.917	22.556	1.045	28.823	9.295	0	11.407	9.213	7.448	2.645	11.333	87.577	16.248	7.175	92.042	119.602	205	30.852	0	19	6.227	16.368	8.285	1.935	3.760	3.462	8.073	2.477
Oct-01	178.139	719.705	88.013	62.364	468	64.016	19.616	0	1.591	2.185	7.434	3.275	7.175	10.743	14.564	5.452	15.914	66.869	745	48.888	10.899	3.382	1.819	5.004	8.148	404	5.447	0	9.685	1.118
Nov-01	186.197	491.503	34.987	44.512	304	34.903	27.162	0	9.510	1.381	13.350	57	6.625	2.004	18.104	975	5.221	21.578	106	53.645	12.682	110	1.873	9.217	181	558	2.406	1.778	322	1.416
Dic-01	329.394	273.072	24.803	24.105	137	10.949	19.029	0	5.110	61	8.665	0	1.214	0	0	0	42.476	40.592	59.155	0	42.476	7.089	3.019	3.817	1.809	5.221	2.905	3.555	2.878	2.783	5.943
Ene-02	356.216	562.831	60.482	65.450	0	72.441	0	12.795	3.017	359	17.283	20.167	10.481	81.611	2.061	8.012	77.947	48.793	0	79.321	17.877	4.914	6.821	48.298	20.715	9.882	9.464	4.268	1.414	0
Feb-02	218.922	844.846	110.116	94.606	18.893	37.004	1.823	13.326	1.894	102.666	3.322	20.810	19.662	159.709	11.074	13.190	103.273	31.193	873	46.437	4.634	9.804	13.262	44.676	29.711	11.742	18.470	5.368	17.125	5.543
Mar-02	664.376	583.613	133.777	71.691	2.645	15.091	16.168	34.906	5.855	7.818	1.070	6.047	16.875	48.054	4.077	12.269	88.093	165.883	669	52.135	12.390	10.397	7.270	27.274	20.840	12.389	7.620	6.116	9.060	4.918
Abr-02	880.033	884.620	75.970	71.556	2.774	49.994	2.674	8.816	5.017	18.281	1.888	10.935	8.037	27.410	16.800	10.183	40.590	162.717	16.295	47.850	7.305	6.333	5.015	14.550	10.317	2.387	4.645	4.317	9.660	5.143
May-02	548.354	972.736	116.439	92.744	2.661	130.956	8.479	4.632	7.353	16.917	1.888	7.716	10.055	31.469	6.589	6.357	30.948	148.371	281	38.267	0	23	0.454	23.000	27.207	9.339	3.581	7.003	9.363	7.771
Jun-02	344.865	737.530	932	43.050	48.855	49.333	3.807	237	1.821	0.072	499	11.851	9.495	149.151	16.629	4.073	43.853	87.691	1.118	58.023	12.869	3.890	7.000	72.253	27.207	9.339	3.581	7.003	10.376	12.028	4.786
Jul-02	364.319	894.334	90.847	63.021	5.333	37.638	6.103	4.348	0	20.993	498	11.859	9.497	149.618	16.616	3.073	43.853	87.813	1.118	58.016	12.871	3.892	7.001	72.264	27.208	9.339	3.581	7.004	10.377	12.031	4.787
Ago-02	711.032	469.008	9.078	63.340	97.132	21.228	3.690	0	21.081	58.185	8.219	21.928	19.777	281.191	11.198	18.277	84.661	92.118	1.672	33.805	11.251	12.350	19.041	27.901	18.106	11.573	0	10.376	12.028	4.786
Sep-02	712.693	900.030	71.880	28.336	1.384	32.894	11.687	0	2.548	2.706	9.179	4.775	8.921	13.491	18.009	6.618	10.881	83.139	917	58.693	10.768	12.893	10.997	38.693	3.836	2.890	10.017	9.608	1.601	6.306
Oct-02	223.369	899.009	47.435	78.273	876	80.649	19.439	0	0.668	1.703	18.043	60	779	2.531	20.154	1.512	12.172	46.189	17.008	72.587	14.538	0	348	12.118	0	442	4.176	348	5.000	0
Nov-02	230.905	891.651	43.869	55.640	375	43.911	33.840	0	0.664	100	11.019	0	1.811	0	22.496	1.212	6.519	29.978	193	73.094	16.047	144	2.328	12.016	225	444	3.480	2.207	400	1.781
Dic-02	410.823	841.113	30.969	30.220	169	19.768	16.131	0	0.664	100	11.019	0	1.811	0	22.496	1.212	6.519	29.978	193	73.094	16.047	144	2.328	12.016	225	444	3.480	2.207	400	1.781

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.95 β = 0.4 γ = 0.1

Mes	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	173.478	608.591	88.069	68.349	14.854	28.739	1.061	10.731	1.374	85.282	10.000	16.726	8.403	66.514	1.029	6.439	62.620	23.816	0	62.723	14.114	3.952	5.287	39.795	18.646	6.068	7.653	3.401	1.167	0
Mar-01	469.992	467.494	112.273	67.143	2.409	11.937	13.171	27.297	3.992	6.007	1.803	16.252	12.650	89.667	8.978	10.651	82.907	29.165	559	37.418	3.734	7.684	10.741	36.828	29.912	9.641	14.669	7.477	14.130	4.727
Abr-01	548.788	477.276	61.017	57.104	1.643	33.667	2.164	7.034	3.594	12.832	1.351	2.791	12.785	97.158	4.019	9.556	70.072	152.941	542	49.036	9.905	9.330	5.613	11.694	15.554	10.227	10.248	5.411	0	1.771
May-01	440.411	780.503	93.419	74.307	1.772	104.973	8.824	3.991	9.299	13.991	1.600	8.751	7.221	83.014	12.717	8.166	92.055	118.973	201	30.701	0	19	5.178	16.037	8.275	1.915	3.720	3.463	7.992	2.450
Jun-01	270.755	691.609	749	34.307	29.611	39.611	3.054	191	1.109	7.275	402	6.155	8.097	84.239	5.109	6.104	35.124	33.464	905	58.750	9.916	3.863	6.404	53.819	21.863	6.337	2.853	5.821	4.297	6.048
Jul-01	292.201	163.597	20.681	59.209	4.364	30.164	4.887	3.507	0	29.375	502	9.523	7.812	118.662	12.571	5.264	35.124	77.519	1.339	31.800	9.031	9.823	12.069	22.591	12.917	9.361	0	6.320	9.649	3.705
Ago-01	571.057	370.504	7.381	71.800	77.780	17.093	3.003	0	16.674	49.663	4.150	12.077	15.876	209.419	9.578	14.693	44.166	77.519	1.339	31.800	9.031	9.823	12.069	22.591	12.917	9.361	0	6.320	9.649	3.705
Sep-01	571.057	721.430	87.597	22.741	1.029	28.137	9.340	0	11.334	9.035	7.337	2.837	11.322	86.958	16.215	11.225	21.778	73.956	4.637	53.883	13.441	10.317	8.709	30.378	2.827	2.143	9.012	7.548	1.441	5.636
Oct-01	178.743	720.249	87.996	62.718	460	64.728	19.328	0	1.819	2.160	7.372	2.837	7.139	10.674	14.536	5.459	15.904	66.923	733	48.911	10.643	3.336	1.804	4.924	8.056	400	2.831	0	9.656	1.113
Nov-01	186.800	491.430	34.973	44.782	299	35.243	30.792	0	5.278	1.360	18.134	49	884	2.004	18.111	1.238	5.221	23.891	108	58.614	12.842	118	1.662	5.658	180	358	2.783	1.766	320	1.409
Dic-01	329.650	273.504	24.794	24.233	135	11.019	12.885	0	5.087	80	8.803	0	1.214	0	0	0	42.450	50.342	0	43.124	7.149	3.044	3.816	1.809	5.221	2.903	3.553	2.876	2.784	5.938
Ene-02	356.653	569.611	60.681	65.140	0	74.121	0	12.680	3.107	365	17.282	20.169	10.332	80.607	2.013	7.648	77.965	47.892	0	77.469	17.364	4.831	6.469	47.677	20.571	9.814	9.359	4.164	1.398	0
Feb-02	216.435	837.739	103.803	93.064	18.650	38.673	1.888	13.523	1.888	101.761	3.330	20.812	19.643	160.724	11.064	13.181	103.276	31.170	872	46.436	4.628	9.810	13.254	44.666	29.707	11.741	18.469	5.369	17.122	5.541
Mar-02	643.860	583.123	130.747	71.782	2.642	15.071	16.123	34.911	5.845	7.819	1.071	6.047	16.878	48.093	4.050	12.262	88.092	165.890	678	52.147	12.393	10.393	7.271	27.276	20.841	12.390	7.622	6.113	9.062	4.918
Abr-02	880.302	884.737	76.979	71.497	2.775	50.008	2.677	8.800	5.015	18.281	1.889	10.936	8.045	27.417	16.801	10.198	40.584	162.564	16.300	47.844	7.308	6.334	5.016	14.553	10.317	2.387	4.645	4.318	9.662	5.143
May-02	548.837	973.110	116.449	92.764	2.662	131.032	8.483	4.618	7.357	16.917	1.889	7.716	10.057	31.474	6.593	6.359	30.948	148.311	281	38.272	0	23	0.455	23.003	27.208	9.339	3.581	7.004	9.364	7.773
Jun-02	344.609	737.756	933	10.992	28.621	49.345	3.810	897	1.829	0.072	499	7.716	10.057	31.474	6.593	6.359	23.853	47.813	1.118	58.016	12.871	3.892	7.001	72.264	27.208	9.339	3.581	7.004	10.377	12.031	4.787
Jul-02	364.417	894.208	90.831	63.032	5.332	37.646	6.108	4.349	0	20.993	498	11.859	9.497	149.618	16.616	3.073	43.853	87.813	1.118	58.016	12.871	3.892	7.001	72.264	27.208	9.339	3.581	7.004	10.377	12.031	4.787
Ago-02	711.091	469.094	9.078	63.354	97.193	21.232	3.692	0	21.081	58.185	8.220	21.928	19.780	281.270	11.204	18.281	84.660	92.139	1.673	33.810	11.255	12.353	19.044	27.908	18.107	11.573	0	10.377	12.031	4.787
Sep-02	712.713	900.214	71.880	28.342	1.385	32.899	11.692	0	2.547	2.706	9.180	4.775	8.922	13.493	18.013	6.618	10.881	83.139	916	58.697	10.769	12.895	10.999	38.699	3.836	2.890	10.017	9.608	1.601	6.307
Oct-02	223.370	899.168	47.435	78.283	876	80.653	19.439	0	0.668	1.703	18.044	60	780	2.531	20.154	1.512	12.172	46.189	17.008	72.582	14.538	0	348	12.118	0	442	4.176	348	5.000	0
Nov-02	230.903	891.732	43.871	55.648	375	43.911	33.840	0	0.664	100	11.020	0	1.811	0	22.497	1.212	6.519	29.981	193	73.097	16.048	144	2.328	12.017	225	444	3.480	2.207	400	1.781
Dic-02	410.823	841.191	30.969	30.220	169	19.768	16.131	0	0.664	100	11.020	0	1.811	0	22.497	1.212	6.519	29.981	193	73.097	16.048	144	2.328	12.017	225	444	3.480	2.207	400	1.781

ESTE DOCUMENTO ES COPIA FIEL DEL ORIGINAL

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.01 β = 0.4 γ = 0.4

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	174.695	612.638	83.726	69.693	14.922	28.901	1.867	10.626	1.791	89.267	10.746	15.710	8.433	66.253	1.005	6.472	97.694	39.162	0	69.271	14.359	3.970	5.312	39.964	10.568	8.068	7.621	3.418	1.164	0
Mar-01	469.050	488.897	112.222	57.074	2.404	11.929	13.116	27.810	3.970	5.097	1.895	18.200	12.855	69.693	8.998	10.987	87.973	24.126	547	37.331	3.734	7.845	10.726	30.402	23.904	9.540	14.526	7.507	14.105	4.721
Abr-01	548.664	476.403	60.987	57.090	1.809	27.833	2.150	7.973	3.092	14.832	1.345	7.155	12.778	37.029	4.603	9.873	70.678	133.207	540	41.834	2.873	6.259	5.858	22.471	16.853	9.009	6.145	4.223	4.027	3.913
May-01	499.859	779.998	93.448	74.295	1.770	104.655	6.804	3.998	5.287	13.501	1.550	8.752	7.215	22.022	2.179	6.179	40.054	139.594	13.063	64.142	5.907	5.088	11.684	18.550	10.227	10.244	3.456	8	1.770	
Jun-01	216.552	891.531	740	54.642	37.224	99.568	3.048	191	1.109	7.276	400	6.185	8.064	29.225	6.276	5.058	32.050	118.696	281	32.072	0	19	5.175	16.029	6.274	1.919	3.725	3.462	7.984	2.922
Jul-01	202.081	163.692	48.548	51.525	4.262	39.154	4.882	3.509	0	34.775	359	9.629	7.618	119.424	12.911	3.283	35.135	38.160	595	55.701	6.909	3.492	6.402	57.805	21.581	6.837	2.853	3.818	4.296	6.244
Ago-01	870.935	316.836	7.291	71.870	77.770	17.069	2.054	0	10.650	46.540	4.176	17.677	15.874	209.381	8.973	14.501	43.109	73.935	1.339	31.792	9.028	6.628	12.067	22.347	12.916	9.364	0	6.324	9.647	3.631
Sep-01	870.763	721.342	97.599	22.730	1.026	29.135	9.337	0	11.332	9.039	7.335	7.692	11.323	59.534	15.817	11.524	91.779	73.047	4.838	60.574	13.439	10.316	6.780	30.377	2.827	2.143	8.012	7.647	1.441	5.058
Oct-01	178.730	720.231	37.987	62.776	490	64.726	12.336	0	1.618	2.160	7.331	3.837	7.139	10.623	16.336	5.450	15.004	69.621	731	48.600	10.842	3.316	1.604	4.924	8.058	400	2.821	0	9.596	1.131
Nov-01	184.883	491.697	34.972	44.781	290	35.242	20.789	0	9.278	1.360	15.133	46	624	2.053	10.110	1.209	5.748	38.542	13.629	55.078	11.030	0	278	9.074	0	353	3.339	278	4.478	0
Dic-01	328.816	213.226	24.788	24.238	135	11.045	12.656	0	5.007	80	8.804	0	1.209	0	17.952	629	6.221	23.994	106	58.512	12.842	115	1.662	9.508	180	355	2.783	1.769	320	1.430
Ene-02	350.080	550.164	60.671	85.850	0	73.704	0	12.716	3.068	355	489	22.275	8.773	22.331	3.668	4.552	46.081	55.086	0	42.738	7.084	3.029	3.497	1.783	5.164	2.885	3.285	2.803	2.778	6.005
Feb-02	218.640	839.293	109.817	84.463	17.916	38.955	1.283	13.537	1.598	101.765	12.241	23.593	10.389	60.462	2.011	7.031	27.940	48.260	0	78.272	17.892	4.561	6.458	47.879	23.507	9.823	9.358	4.191	1.419	0
Mar-02	693.400	583.691	133.662	72.096	2.918	16.187	19.971	36.197	5.431	7.260	2.300	21.026	16.010	106.143	10.993	15.136	103.195	31.100	663	46.361	4.016	9.780	13.337	44.289	28.588	11.694	18.390	9.331	17.348	6.029
Abr-02	680.144	595.527	76.101	71.737	2.228	50.323	2.644	8.908	4.736	18.170	1.688	9.138	13.801	46.812	4.952	12.215	88.184	165.701	664	62.068	12.253	10.246	7.284	27.001	20.748	12.349	7.654	6.104	4.628	4.952
May-02	848.042	972.097	116.992	93.211	2.100	131.660	8.472	4.904	6.820	16.784	1.975	11.010	8.947	27.329	16.800	10.172	80.016	162.730	16.207	67.637	7.364	6.327	5.606	14.481	12.391	12.629	12.729	4.241	0	2.278
Jun-02	345.387	239.469	926	45.253	48.017	49.549	3.791	240	1.405	9.036	497	7.783	10.060	31.411	6.578	6.355	49.047	144.351	259	38.297	0	24	6.451	19.927	10.302	2.585	4.641	4.316	9.959	3.185
Jul-02	393.974	204.871	50.665	64.313	5.311	37.781	6.087	4.392	0	30.691	497	11.944	8.807	148.165	15.611	4.073	43.605	47.641	1.116	69.582	12.377	4.358	7.993	72.014	27.265	8.528	3.859	7.464	5.389	7.822
Ago-02	713.464	471.113	9.112	93.691	97.047	31.393	3.087	0	10.631	68.125	9.215	22.100	19.931	261.425	11.206	16.313	85.198	92.370	1.670	39.720	11.280	12.274	15.071	27.887	16.125	11.691	0	10.395	12.047	4.764
Sep-02	713.349	601.642	71.987	28.493	1.291	32.667	11.662	0	14.207	11.286	9.162	9.859	14.150	75.118	21.035	14.395	97.221	92.407	5.668	75.702	16.794	12.659	10.883	37.938	3.532	2.677	10.010	9.805	1.800	6.337
Oct-02	223.395	850.295	47.482	78.483	575	60.832	15.400	0	2.401	2.695	9.160	4.798	8.921	13.274	17.660	6.811	19.680	83.138	916	60.626	13.551	4.169	2.254	6.151	10.069	500	3.525	0	11.991	1.415
Nov-02	231.058	602.316	43.714	53.982	374	44.068	33.476	0	6.604	1.699	18.912	60	780	2.579	20.138	1.511	12.185	48.172	17.032	72.592	14.537	0	348	12.093	0	442	4.176	348	5.597	0
Dic-02	411.135	341.625	35.997	39.800	169	13.807	16.105	0	6.302	100	11.001	0	1.512	0	22.440	1.212	8.526	29.990	133	73.136	16.091	144	2.327	11.666	225	444	3.479	2.207	400	1.787

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.01 β = 0.4 γ = 0.6

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	188.781	617.638	88.486	67.166	19.194	39.175	1.698	10.481	1.419	89.207	10.393	16.685	8.533	66.852	1.603	6.574	97.578	39.691	0	64.204	14.507	4.002	5.354	40.124	17.062	8.076	7.760	3.446	1.168	0
Mar-01	487.665	485.498	112.157	59.559	2.356	11.890	13.626	31.927	3.949	5.607	1.873	19.372	12.842	68.475	8.898	10.643	82.981	23.057	544	37.187	3.707	7.828	10.707	30.416	23.692	9.538	14.665	7.551	14.092	4.711
Abr-01	543.913	474.831	60.939	58.904	1.832	29.723	2.139	7.105	3.560	14.832	1.335	7.197	12.749	36.992	3.974	9.649	71.087	132.911	539	41.650	2.923	6.250	5.842	22.418	16.784	9.003	6.141	4.911	4.013	3.904
May-01	499.857	779.998	93.396	74.291	1.765	104.655	6.770	3.918	5.297	13.660	1.561	8.755	7.205	21.984	12.658	6.166	40.027	139.348	13.063	63.993	5.888	5.079	4.692	11.667	15.544	10.228	10.237	3.455	0	1.767
Jun-01	216.297	890.837	749	54.616	37.449	99.649	3.040	197	1.103	7.315	399	6.106	8.054	29.192	6.264	5.093	32.067	118.766	290	32.078	0	19	5.171	16.015	6.272	1.919	3.724	3.462	7.974	2.920
Jul-01	201.877	163.781	48.535	51.573	4.259	39.137	4.874	3.513	0	34.774	359	9.639	7.625	119.397	12.902	3.292	35.126	38.127	591	55.652	6.899	3.494	6.399	57.778	21.582	6.835	2.852	5.816	4.292	6.241
Ago-01	870.760	316.755	7.290	71.882	77.733	17.064	2.051	0	10.637	46.540	4.174	17.678	15.870	209.317	8.966	14.503	44.107	73.910	1.337	31.776	9.023	6.625	12.061	22.341	12.915	9.363	0	6.322	9.643	3.630
Sep-01	870.641	721.191	97.582	22.736	1.026	29.120	9.332	0	11.327	9.039	7.332	7.693	11.322	59.521	16.830	11.522	91.778	73.054	4.834	60.567	13.454	10.316	6.787	30.372	2.827	2.143	8.012	7.646	1.441	5.065
Oct-01	178.709	720.116	37.986	62.770	490	64.722	12.332	0	1.619	2.160	7.319	3.837	7.138	10.622	16.332	5.450	15.005	69.614	732	48.459	10.840	3.338	1.604	4.923	8.058	400	2.821	0	9.594	1.131
Nov-01	184.841	491.654	34.972	44.779	290	35.240	20.785	0	9.277	1.360	16.131	49	624	2.053	10.108	1.209	5.748	38.540	13.627	55.074	11.029	0	278	9.074	0	353	3.339	278	4.478	0
Dic-01	328.805	213.226	24.788	24.238	135	11.045	12.655	0	5.007	80	8.801	0	1.209	0	17.950	629	6.221	23.993	106	58.510	12.841	115	1.662	9.508	180	355	2.783	1.769	320	1.430
Ene-02	350.791	550.231	60.687	85.879	0	73.707	0	12.724	3.084	355	476	22.310	8.777	22.334	3.671	4.553	46.091	55.099	0	42.056	6.939	3.004	3.489	1.774	5.171	2.883	3.273	2.809	2.742	5.958
Feb-02	219.900	849.906	110.228	85.278	18.234	37.420	1.239	13.350	1.664	101.764	12.833	20.559	10.465	61.454	2.073	8.008	27.899	48.899	0	79.744	17.843	4.911	6.565	48.478	20.587	9.830	9.404	4.215	1.431	0
Mar-02	693.020	583.614	129.876	73.113	2.917	16.172	19.940	36.325	5.420	7.260	2.302	21.025	16.014	106.178	10.932	15.139	103.354	31.116	656	46.383	4.019	9.765	13.211	44.300	28.590	11.695	18.389	9.334	17.355	6.031
Abr-02	679.337	594.639	76.079	71.642	2.255	50.276	2.647	8.951	4.713	18.170	1.654	9.139	13.853	46.782	4.959	12.222	88.187	165.829	663	62.030	12.251	10.233	7.248	27.078	20.741	12.349	7.601	6.099	4.650	4.681
May-02	848.450	974.291	116.687	93.158	2.107	131.777	8.414	4.917	6.803	16.795	1.975	11.041	8.932	27.318	16.770	10.166	80.018	162.691	16.177	67.481	7.351	6.323	5.604	14.452	19.398	12.603	12.728	4.239	0	2.227
Jun-02	345.282	239.075	924	45.246	48.009	49.528	3.785	240	1.403	9.036	497	7.784	10.057	31.397	6.568	6.352	49.047	144.291	249	38.271	0	24	6.448	19.919	10.301	2.585	4.640	4.316	9.948	3.184
Jul-02	394.814	204.911	50.650	64.301	5.309	37.757	6.083	4.390	0	30.693	497	11.945	8.809	148.218	15.631	4.072	43.606	47.625	1.116	69.556	12.371	4.357	7.989	72.019	27.268	8.528	3.859	7.462	5.389	7.821
Ago-02	713.365	471.038	9.112	93.681	97.028	31.389	3.086	0	10.642	68.125	9.213	22.101	19.929	261.330	11.202	16.311	85.196	92.356	1.670	39.717	11.277	12.275	15.069	27.884	16.125	11.691	0	10.395	12.048	4.763
Sep-02	713.282	601.605	71.985	28.491	1.291	32.664	11.660	0	14.203	11.286	9.163	9.859	14.149	75.112	21.031	14.397	97.221	92.409	5.664	75.693	16.792	12.659	10.882	37.933	3.532	2.677	10.009	9.804	1.800	6.338
Oct-02	223.393	850.216	47.481	78.481	575	60.829	15.399	0	2.401	2.695	9.159	4.798	8.921	13.273	17.657	6.811	19.680	83.134	916	60.622	13.549	4.169	2.254	6.151	10.069	500	3.525	0	11.991	1.415
Nov-02	231.049	602.315	43.714	53.981	374	44.068	33.476	0	6.603	1.699	18.910	60	780	2.579	20.135	1.511	12.185	48.173	17.031	72.592	14.536	0	348	12.093	0	442	4.176	348	5.597	0
Dic-02	411.127	341.611	35.997	39.800	169	13.807	16.104	0	6.302	100	11.001	0	1.511	0	22.438	1.212	8.526	29.990	133	73.136	16.091	144	2.327	11.666	225	444	3.479	2.207	400	1.787

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.01 β = 0.6 γ = 0.1

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	173.478	606.681	84.069	68.348	14.614	28.729	1.891	10.731	1.374	89.284	10.660	19.735	8.491	66.914	1.579	6.439	83.620	38.918	0	62.722	14.114	3.662	5.297	39.709	10.948	8.005	7.653	3.401	1.147	0
Mar-01	468.225	487.658	112.278	57.535	2.369	12.060	13.562	28.229	3.883	5.508	1.855	18.603	12.856	69.708	8.957	10.931	81.035	25.017	537	37.214	3.709	7.695	10.648	30.658	23.653	9.456	14.662	7.517	13.965	4.782
Abr-01	549.281	477.695	61.013	57.628	1.803	28.300	2.125	7.175	3.665	14.581	1.355	7.227	12.719	36.212	3.957	9.650	70.139	132.856	534	41.705	2.849	6.214	5.814	22.118	16.672	9.002	6.094	4.935	3.996	3.973
May-01	499.836	781.414	93.457	74.121	1.783	103.753	6.758	3.941	5.277	13.431	1.585	8.653	7.197	21.884	12.681	6.145	40.053	139.549	13.063	64.116	5.901	5.068	4.690	11.625	15.447	10.183	10.193	3.397	0	1.767
Jun-01	216.550	892.195	740	54.646	37.228	99.566	3.039	192	1.104	7.309	399	6.233	8.054	29.148	6.269	5.057	32.054	118.705	290	32.072	0	19	5.164	16.001	6.245	1.908	3.716	3.456	7.987	2.935
Jul-01	202.109	163.688	48.549	51.529	4.262	39.154	4.878	3.512	0	34.804	359	9.628	7.605	119.399	12.901	3.290	35.134	38.154	593	55.705	6.909	3.496	6.405	57.810	21.602	6.833	2.849	5.814	4.291	6.251
Ago-01	872.652	316.141	7.316	72.162	77.893	17.164	2.059	0	10.705	46.674	4.161	17.771	15.910	209.053	8.990	14.701	43.324	74.144	1.340	31.843	9.032	6.633	12.094	22.397	12.918	9.368	0	6.347	9.670	3.649
Sep-01	869.121	719.335	97.405	22.676	1.022	29.074	9.312	0	11.302	8.999	7.318	7.673	11.295	59.733	15.782	11.494	91.744	73.716	4.823	60.466	13.403	10.291	6.769	30.251	2.818	2.135	7.992	7.621	1.436	5.054
Oct-01	178.514	719.335	37.938	62.709	489	64.664	12.311	0	1.617	2.165	7.322	3.833	7.128	10.607	16.302	5.442	15.001	69.633	732	48.469	10.839	3.331	1.601	4.918	8.044	399	2.815	0	9.582	1.131
Nov-01	184.664	491.697	34.941	44.763	289	35.207	20.769	0	9.270	1.360	16.115	46	624	2.053	10.101	1.209	5.748	38.549	13.629	55.091	11.032	0	278	9.074	0	353	3.339	278	4.478	0
Dic-01	329.047	213.413	24.810	24.281	135	11.051	12.665	0	5.008	80	8.809	0	1.210	0	17.966	970	5.223	24.003	106	58.534	12.846	115	1.663	9.601	180	355	2.784	1.767	320	1.431
Ene-02	350.731	551.468	60.706	85.877	0	74.142	0	12.694	3.107	388	497	22.251	8.841	22.438	3.707	4.418	46.562	56.353	0	43.132	7.141	3.048	3.515	1.799	5.192	2.887	3.291	2.878	2.760	6.058
Feb-02	214.877	834.254	109.836	84.019	17.749	38.753	1.263	13.559	1.643	101.614	12.049	23.432	10.332	78.958	1.966	7.870	27.811	47.905	0	77.409	17.390	4.872	6.401	47.097	23.515	9.802	9.323	4.169	1.397	0
Mar-02	693.650	584.136	140.135	73.177	3.016	16.191	18.931	34.487	5.110	7.283	2.300	21.050	16.033	106.235	10.993	15.143	103.630	31.157	661	46.373	4.016	9.765	15.224	44.316	28.633	11.724	18.438	9.342	17.381	6.033
Abr-02	681.722	590.697	75.270	71.884	2.253	50.434	2.650	8.958	4.448	18.216	1.662	9.153	13.868	45.013	4.967	12.252	89.376	165.668	668	62.018	12.311	10.270	7.270	27.042	20.761	12.376	7.625	6.118	4.667	4.656
May-02	848.664	976.432	116.885	93.364	2.104	132.087	8.483	4.923	6.809	16.815	1.961	11.053	8.951	27.388	16.841	10.183	80.074	163.018	16.248	67.672	7.369	6.337	5.617	14.486	19.327	12.719	12.747	4.248	0	2.232
Jun-02	346.760	240.231	975	45.303	48.072	49.609	3.800	240	1.379	9.040	499	7.769	10.068	31.443	6.587	6.369	49.060	144.511	250	38.314	0	24	6.466	19.946	10.304	2.589	4.644	4.320	9.961	3.185
Jul-02	395.133	204.648	50.657	64.346	5.316	37.781	6.093	4.395	0	30.695	497	11.948	8.809	148.259	15.645	4.075	43.618	47.667	1.116	69.627	12.385	4.359	7.998	72.070	27.277	8.531	3.860	7.468	5.389	7.827
Ago-02	716.844	471.691	9.146	93.804	97.208	31.464	3.097	0	10.633	68.340	9.223	22.215	19.964	262.336	11.237	16.378	85.406	92.676	1.675	39.853	11.315	12.317	15.123	27.993	16.189	11.735	0	10.433	12.087	4.811
Sep-02	711.460	599.191	71.750	28.349	1.278	32.565	11.639	0	14.181	11.248	9.144	9.865	14.107	74.918	20.972	14.355	97.126	92.148	5.654	75.508	16.763	12.652	10.861	37.826	3.529	2.669	9.978	9.778	1.795	6.316
Oct-02	223.143	850.224	47.418	78.397	574	60.803	15.393	0	2.399	2.694	9.153	4.791	8.910	13.258	17.636	6.803	19.651	83.041	915	60.562	13.537	4.164	2.252	6.144	10.060	499	3.521	0	11.979	1.413
Nov-02	231.116	602.469	43.727	53.999	374	44.073	33.487	0	6.598	1.699	18.916	60	780	2.579	20.139	1.512	12.185	48.187	17.032	72.614	14.540	0	348	12.093	0	442	4.176	348	5.598	0
Dic-02	411.309	341.755	31.012	39.912	169	13.814	16.110	0	6.301	100	11.002	0	1.512	0	22.442	1.212	8.526	29.993	133	73.138	16.092	144	2.328	12.001	225	444	3.480	2.208	400	1.788

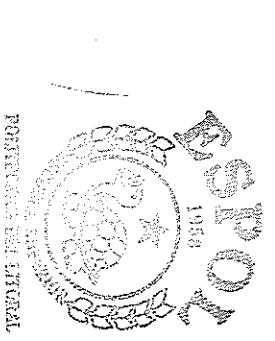
"SOLO PARA USO OFICIAL"

CALCULOS PRONOSTICOS CON METODO WINTERS $\alpha = 0.9$ $\beta = 0.1$ $\gamma = 0.2$

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	174,604	617,039	88,223	68,633	18,972	29,681	1,007	10,695	1,391	85,297	10,116	18,710	8,439	66,269	1,652	6,472	82,606	89,155	0	63,271	14,259	3,916	5,312	33,984	10,568	8,068	7,671	3,416	1,164	0
Mar-01	465,913	465,525	112,140	57,332	2,349	12,018	12,737	28,421	3,902	8,668	1,800	16,674	12,763	83,371	8,747	10,643	83,066	84,808	535	41,858	9,818	6,202	5,606	23,043	10,620	9,886	6,092	4,859	3,668	3,858
Abr-01	644,164	378,756	59,923	57,446	1,895	40,294	2,116	7,199	3,652	14,664	1,322	7,329	12,639	38,650	3,909	8,791	59,764	132,592	535	41,858	9,818	6,202	5,606	23,043	10,620	9,886	6,092	4,859	3,668	3,858
May-01	439,765	781,926	93,464	76,216	1,783	109,744	6,784	3,641	5,276	13,231	1,865	9,853	7,187	51,466	12,658	9,148	47,064	122,330	12,978	54,116	9,999	5,666	4,460	11,972	16,445	10,163	10,163	3,398	0	1,767
Jun-01	276,630	692,276	740	34,650	17,313	39,771	3,040	182	1,104	7,235	393	6,232	8,055	35,152	5,276	8,038	35,194	33,139	893	58,707	9,999	3,449	6,396	57,091	21,822	6,828	2,648	5,414	4,291	6,261
Jul-01	282,506	163,997	68,650	59,677	4,262	30,295	4,875	3,617	0	24,691	358	9,553	7,605	119,744	12,539	3,290	35,194	73,144	1,340	31,883	9,092	9,853	12,088	22,397	12,648	9,288	0	8,347	9,670	3,649
Ago-01	572,691	378,146	7,318	72,162	17,869	17,164	2,958	0	18,705	46,674	4,164	17,771	15,003	209,853	8,000	14,701	44,324	73,716	4,523	60,409	13,403	10,281	8,769	30,281	2,816	2,135	7,662	7,821	1,436	8,054
Sep-01	669,116	719,954	67,405	22,679	1,022	20,073	9,312	0	11,302	8,999	7,316	7,072	11,268	58,733	16,784	11,694	21,703	73,716	4,523	60,409	10,820	3,331	1,601	4,918	9,044	399	3,816	0	9,582	1,131
Oct-01	178,614	718,331	37,933	62,709	483	64,669	12,311	0	1,917	2,183	7,322	3,833	7,129	18,007	14,380	9,412	15,081	68,433	732	58,691	11,632	0	378	6,674	0	353	3,340	218	4,478	0
Nov-01	184,804	491,991	33,881	44,798	299	35,287	28,760	0	6,276	1,360	16,133	46	621	2,063	16,111	1,228	9,750	33,816	13,629	58,691	11,632	0	378	6,674	0	353	3,340	218	4,478	0
Dic-01	329,044	273,513	24,810	24,251	135	11,091	12,858	0	5,628	69	8,666	0	1,210	0	17,966	970	5,223	24,693	105	58,332	12,648	116	1,663	6,601	160	335	3,224	1,705	1,444	0
Ene-02	351,875	585,650	60,563	55,604	0	79,031	0	12,029	9,005	369	476	29,318	8,724	32,003	3,421	6,358	46,593	55,693	0	69,671	16,233	4,640	6,604	18,766	23,600	6,830	9,431	2,905	1,444	0
Feb-02	231,812	654,360	110,427	69,785	18,484	37,893	1,359	13,340	1,693	101,831	12,966	20,344	10,541	82,053	2,116	8,038	77,323	49,288	0	69,671	16,233	4,640	6,604	18,766	23,600	6,830	9,431	2,905	1,444	0
Mar-02	579,401	579,844	122,872	71,826	3,660	18,091	19,646	35,023	8,016	3,242	2,705	21,077	16,659	106,231	10,789	13,050	103,650	70,929	654	25,932	4,663	9,749	13,137	44,101	25,695	11,718	18,382	9,364	17,229	5,009
Abr-02	618,111	693,928	76,170	71,630	3,749	60,225	2,937	9,026	5,403	18,218	1,845	8,160	13,826	45,712	4,607	12,215	63,397	105,314	699	51,872	12,215	10,231	7,248	27,000	29,771	12,374	7,610	5,291	4,971	4,047
May-02	649,625	676,101	116,838	53,317	2,182	132,017	8,440	4,525	6,664	16,815	1,993	11,094	8,627	27,359	15,816	10,184	60,076	162,903	16,772	67,627	7,372	6,333	5,014	14,478	19,324	12,713	12,749	3,383	0	2,231
Jun-02	345,667	740,442	925	43,311	46,688	49,710	3,697	240	1,360	6,940	493	11,849	9,627	149,053	15,630	4,078	43,917	47,673	1,116	69,611	12,369	4,351	7,009	73,078	27,278	6,511	3,864	5,294	7,827	3,103
Jul-02	366,193	209,016	60,865	63,223	8,315	37,780	6,005	4,326	0	20,803	8,210	22,219	19,869	292,312	11,238	10,376	55,405	92,631	1,675	39,853	11,315	12,317	15,123	27,993	16,165	11,718	0	10,468	12,092	4,611
Ago-02	718,855	472,645	9,145	60,205	67,350	21,456	3,697	0	19,634	68,340	9,144	9,045	14,107	70,916	20,693	14,855	27,123	62,147	5,864	76,507	16,763	12,802	10,061	37,826	3,520	2,669	9,978	9,778	1,795	6,316
Sep-02	711,393	692,188	71,738	29,348	1,276	32,682	11,640	0	14,127	11,328	8,193	4,791	8,910	13,258	17,976	6,833	10,851	31,641	916	69,943	13,517	4,164	2,252	6,144	10,065	499	3,621	0	11,978	1,413
Oct-02	223,142	680,234	47,418	76,380	874	50,835	16,389	0	3,990	2,694	18,016	60	780	2,579	20,139	1,512	12,188	45,197	17,036	72,614	14,540	0	348	12,003	0	442	4,175	348	5,599	0
Nov-02	231,115	597,490	43,727	55,068	374	44,072	23,467	0	6,564	1,693	11,009	0	1,612	0	22,458	1,218	6,529	30,004	133	73,169	16,068	144	2,328	12,001	225	444	3,450	2,209	400	1,788
Dic-02	411,309	341,765	31,012	30,314	169	13,814	16,110	0	6,561	100	11,009	0	1,612	0	22,458	1,218	6,529	30,004	133	73,169	16,068	144	2,328	12,001	225	444	3,450	2,209	400	1,788

CALCULOS PRONOSTICOS CON METODO WINTERS $\alpha = 0.9$ $\beta = 0.1$ $\gamma = 0.2$

MES	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Ene-01	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	178,761	617,039	88,485	67,166	18,164	29,175	1,056	10,451	1,419	85,282	10,305	18,885	8,600	68,809	1,652	6,558	82,572	89,681	0	64,264	14,507	4,002	5,354	20,304	17,000	8,075	7,700	3,291	1,163	0
Mar-01	461,600	461,526	111,908	57,032	3,325	11,939	12,485	25,134	3,851	8,668	1,802	16,692	12,702	84,709	8,631	10,468	83,078	84,824	523	33,591	3,833	7,818	10,663	23,669	20,640	9,548	14,765	7,604	13,769	4,745
Abr-01	642,214	476,660	60,928	57,316	1,797	40,183	2,098	7,229	3,630	14,664	1,312	7,312	12,671	38,646	3,931	9,055	59,775	132,319	12,973	54,097	8,329	9,063	4,469	11,970	15,440	10,183	10,183	3,465	0	1,767
May-01	439,697	781,174	93,464	74,709	1,762	109,727	6,781	3,612	5,274	13,451	1,864	9,854	7,186	51,662	12,653	9,144	46,954	122,313	12,973	54,097	8,329	9,063	4,469	11,970	16,440	10,183	10,183	3,465	0	1,767
Jun-01	276,715	692,456	740	34,656	17,349	39,780	3,042	182	1,105	7,229	393	6,232	8,055	35,157	5,274	8,039	35,194	33,139	893	58,714	9,911	3,469	6,396	57,093	21,823	6,823	2,649	5,414	4,292	6,262
Jul-01	282,165	164,013	68,581	59,680	4,253	30,228	4,878	3,618	0	24,694	358	9,553	7,605	119,754	12,539	3,290	35,194	74,145	1,340	31,883	9,057	9,853	12,088	22,397	12,648	9,288	0	8,348	9,670	3,649
Ago-01	572,691	376,146	7,318	72,162	17,869	17,164	2,958	0	18,705	46,674	4,164	17,771	15,003	209,853	8,000	14,701	44,324	73,716	4,523	60,409	13,403	10,281	8,769	30,281	2,816	2,135	7,662	7,821	1,436	8,054
Sep-01	669,112	719,348	67,405	22,679	1,022	20,073	9,312	0	11,302	8,999	7,316	7,072	11,268	58,733	16,784	11,694	21,703	73,716	4,523	60,409	10,820	3,331	1,601	4,918	9,044	399	3,816	0	9,582	1,131
Oct-01	178,613	718,379	37,933	62,709	483	64,669	12,311	0	1,917	2,183	7,322	3,833	7,129	18,007	14,380	9,412	15,081	68,433	732	58,691	11,632	0	378	6,674	0	353	3,340	218	4,478	0
Nov-01	184,804	491,991	33,881	44,798	299	35,287	28,760	0	6,276	1,360	16,133	46	621	2,063	16,111	1,228	9,750	33,816	13,629	58,691	11,632	0	378	6,674	0	353	3,340	218	4,478	0
Dic-01	329,044	273,513	24,810	24,251	135	11,091	12,858	0	5,628	69	8,666	0	1,210	0	17,966	970	5,223	24,693	105	58,332	12,648	116	1,663	6,601	160	335	3,224	1,705	1,444	0
Ene-02	351,875	585,650	60,563	55,604	0	79,031	0	12,029	9,005	369	476	29,318	8,724	32,003	3,421	6,358	46,593	55,693	0	69,671	16,233	4,640	6,604	18,766	23,600	6,830	9,431	2,905	1,444	0
Feb-02	231,812	654,360	110,427	69,785	18,484	37,893	1,359	13,340	1,693	101,831	12,966	20,344	10,541	82,053	2,116	8,038	77,323	49,288	0	69,671	16,233	4,640	6,604	18,766	23,600	6,830	9,431	2,905	1,444	0
Mar-02	579,401	579,844	122,872	71,826	3,660	18,091	19,646	35,023	8,016	3,242	2,705	21,077	16,659	106,231	10,789	13,050	103,650	70,929	654	25,932	4,663	9,749	13,137	44,101	25,695	11,718	18,382	9,364	17,229	5,009
Abr-02	618,111	693,928	76,170	71,630	3,749	60,225	2,937	9,026	5,403	18,218	1,845	8,160	13,826	45,712	4,607	12,215	63,397	105,314	699	51,872	12,215	10,231	7,248	27,000	29,771	12,374	7,610	5,291	4,971	4,047
May-02	649,625	676,101	116,838	53,317	2,182	132,017	8,440	4,525	6,664	16,815	1,993	11,094	8,627	27,359	15,816	10,184	60,076	162,903	16,772	67,627	7,372	6,333	5,014	14,478	19,324	12,713	12,749	3,383	0	2,231
Jun-02	345,667	740,442	925	43,311	46,688	49,710	3,697	240	1,360	6,940	493	11,849	9,627	149,053	15,630	4,078	43,917	47,673	1,116	69,611	12,369	4,351	7,009	73,078	27,278	6,511	3,864	5,294	7,827	3,103
Jul-02	366,193	209,016	60,865	63,223	8,315	37,780	6,005	4,326	0	20,803	8,210	22,219	19,869	292,312	11,238	10,376	55,405	92,631	1,675	39,853	11,315	12,317	15,123	27,993	16,165	11,718	0	10,468	12,092	4,611
Ago-02	718,855	472,645	9,145	60,205	67,350	21,456	3,697	0	19,634	68,340	9,144	9,045	14,107	70,916	20,693	14,855	27,123	62,147	5,864	76,507	16,763	12,802	10,061	37,826	3,520	2,669	9,978	9,778	1,795	6,316
Sep-02	711,393	692,188	71,738	29,348	1,276	32,682	11,640	0	14,127	11,328	8,193	4,791	8,910	13,258	17,976	6,833	10,851	31,641	916	69,943	13,517	4,164	2,252	6,144	10,065	499	3,621	0	11,978	1,413
Oct-02	223,142	680,234	47,418	76,380	874	50,835	16,389	0	3,990	2,694	18,016	60	780	2,579	20,139	1,512	12,188	45,197	17,036	72,614	14,540	0	348	12,003	0	442	4,175	348	5,599	0
Nov-02	231,115	597,490	43,727	55,068	374	44,072	23,467	0	6,564	1,693	11,009	0	1,612	0	22,458	1,218	6,529	30,004	133	73,169	16,068	144	2,328	12,001	225	444	3,450	2,209	400	1,788
Dic-02	411,309	341,765	31,012	30,314	169	13,814	16,110	0	6,561	100	11,009	0	1,612	0	22,458	1,218	6,529	30,004	133	73,169	16,068	144	2,328	12,001	225	444	3,450	2,209	400	1,788



APENDICE 7
ERRORES DE PRONOSTICOS

METODO DE PRONOSTICO	#1			#2			#3			#4		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Promedio Móvil	214982.7733	341410.8018	58.80%	291650.5926	343251.6921	68.65%	30455.77333	44699.83841	1271.90%	22829.2	26472.37452	44.46%
Suavización Exponencial α=0.1	167195.9063	190090.2901	41.30%	194887.3658	243295.2053	43.98%	33777.57384	42146.53673	727.98%	21800.9429	27013.62527	48.53%
Suavización Exponencial α=0.4	180320.7603	210280.0706	49.48%	205845.8622	272724.046	49.06%	34086.74162	43628.66721	991.12%	22759.68981	28147.91314	45.14%
Suavización Exponencial α=0.9	173949.4462	225995.0664	47.63%	229560.3457	292432.6932	53.25%	43717.21314	51151.11797	1097.59%	28974.89477	35804.28406	55.21%
Método Tendencia α=0.10, β=0.1	180549.0377	201569.8317	47.86%	200279.3001	257180.5718	38.92%	35847.3328	44889.07332	860.85%	22925.71527	29073.45683	52.11%
Método Tendencia α=0.10, β=0.4	190020.3337	215313.5845	54.55%	192603.3945	244692.8746	46.30%	39462.77345	48045.40451	973.07%	22306.78762	27487.5831	45.83%
Método Tendencia α=0.10, β=0.9	202948.4251	229688.2825	59.39%	198378.1495	251458.5886	47.80%	40149.44494	51990.27492	1116.69%	23014.75002	27727.11605	40.23%
Método Tendencia α=0.4, β=0.1	182654.3663	217780.9061	52.42%	214295.736	274525.7104	50.44%	34892.92076	45616.80658	1075.80%	23338.61186	28925.80303	45.23%
Método Tendencia α=0.4, β=0.4	210435.9065	235883.394	59.65%	234038.8432	306837.2399	55.62%	37880.45862	50297.44435	1186.04%	23826.61176	30011.7581	43.38%
Método Tendencia α=0.4, β=0.9	252513.1814	271064.4766	67.67%	234118.6255	352769.6717	62.37%	41994.25111	55354.4431	1176.88%	25841.81428	31848.5321	47.19%
Método Tendencia α=0.9, β=0.1	179457.6873	237141.6028	49.72%	230349.5019	312868.1591	55.42%	44857.55603	53424.25958	1141.58%	30303.49126	32830.0709	56.98%
Método Tendencia α=0.9, β=0.4	214612.3433	271773.4967	59.26%	295640.311	360896.7349	62.24%	50016.66154	60249.4065	1159.89%	34455.39655	42132.86296	63.82%
Método Tendencia α=0.9, β=0.9	286343.1015	322659.467	78.32%	338617.5398	403606.364	68.55%	62631.05452	75435.77983	1243.71%	43019.75112	53021.20663	79.66%
Winters α=0.1, β =0.10, γ=0.1	6067.525998	36980.92.89	1.57%	6010.627927	688772941	1.04%	377.4453833	3448418281	0.73%	3800.830896	17690064.25	6.37%
Winters α=0.1, β =0.1, γ=0.4	6591.164643	062081168	1.71%	6388.701935	7585.4191.22	1.11%	397.2713062	3526151.92	0.76%	3771.661637	17732295.69	6.31%
Winters α=0.1, β =0.1, γ=0.9	7484.032931	89006148.04	1.95%	7869.238192	10030621.92	1.36%	443.5985557	3824268783	0.83%	3722.035403	17878258.98	6.21%
Winters α=0.4, β =0.1, γ=0.1	5918.808126	41131167.32	1.43%	5526.226429	2292.4080.91	0.62%	319.8371247	2590088538	0.58%	1483.651464	3233250.22	2.60%
Winters α=0.1, β =0.4, γ=0.4	6270.613214	53838931.26	1.50%	4330.051088	20810814.21	0.77%	338.4045859	2011612502	0.60%	1462.516902	3282979.303	2.61%
Winters α=0.1, β =0.4, γ=0.9	75 10.328381	72444056.67	1.75%	6259.063012	56095811.36	1.11%	392.3331678	3186125532	0.66%	1476.9167	3473795.845	2.62%
Winters α=0.1, β =0.9, γ=0.1	4334.211163	28796154.32	0.96%	1948.436088	8688693.841	0.37%	257.8891905	2056402924	0.43%	918.6082365	1516347.062	1.52%
Winters α=0.1, β =0.9, γ=0.4	4305.186027	28177789.47	1.00%	2270.382886	7820774.951	0.45%	254.6114108	1912218529	0.41%	885.4918532	1435580.081	1.52%

POLITECNICA DEL LITORAL
BIBLIOTECA "GUMERSINDO BAYAS"
F.I.M.C.P.

METODO DE PRONOSTICO	#1			#2			#3			#4		
	EMA	EMRC	PAMR	EMA	EMRC	PAMR	EMA	EMRC	PAMR	EMA	EMRC	PAMR
Winters α=0.1, β =0.9, γ = 0.9	4543.450365	36376172.95	1.1%	3694.661437	24813784.23	0.9%	275.4100509	186404.9874	0.4%	873.131536	1423762.263	1.4%
Winters α=0.4, β =0.1, γ = 0.1	2482.772305	9230497.395	0.6%	2051.985022	8058386.481	0.5%	220.2607564	131192.3509	0.3%	1011.836299	1293410.753	1.3%
Winters α=0.4, β =0.1, γ = 0.4	2585.184889	10858129.69	0.6%	2360.233584	9470012.751	0.6%	223.2323128	125907.6757	0.3%	1005.577823	1287278.114	1.3%
Winters α=0.4, β =0.1, γ = 0.9	3029.803393	15882872.7	0.8%	3242.419874	19887494	0.8%	242.9048573	128540.7078	0.3%	994.6068827	1342540.551	1.4%
Winters α=0.4, β =0.4, γ = 0.1	1827.33844	5355094.462	0.4%	1307.225066	3716485.292	0.3%	192.6655016	104091.4826	0.3%	423.3133525	381271.7729	0.4%
Winters α=0.4, β =0.4, γ = 0.4	1720.482986	5317180.92	0.4%	1582.644482	4175886.063	0.3%	189.248108	96538.0917	0.2%	403.7211636	357434.6885	0.4%
Winters α=0.4, β =0.4, γ = 0.9	1905.382548	9019334.395	0.5%	2380.490104	14245945.43	0.7%	194.535021	81897.9382	0.3%	412.2822852	388190.0193	0.4%
Winters α=0.4, β =0.9, γ = 0.1	1452.962821	3714929.787	0.3%	1383.826807	3080255.403	0.2%	161.7792723	70375.808	0.2%	338.4997335	221781.5815	0.2%
Winters α=0.4, β =0.9, γ = 0.4	1503.335428	4103457.286	0.4%	1845.238991	5342942.01	0.3%	165.8012542	69175.32526	0.2%	334.5552058	214902.5241	0.2%
Winters α=0.4, β =0.9, γ = 0.9	2250.726516	8809395.823	0.6%	3301.319101	20445712.43	0.9%	179.4133421	56627.18637	0.2%	370.7271367	284734.4253	0.3%
Winters α=0.9, β =0.1, γ = 0.1	1467.647642	3936862.832	0.3%	1242.204847	2393478.93	0.2%	143.4189938	55717.47073	0.2%	305.0817735	310218.4523	0.3%
Winters α=0.9, β =0.1, γ = 0.4	1631.008263	4225311.12	0.4%	1602.542231	4391495.063	0.3%	139.3443229	53622.64161	0.2%	362.3182618	307169.4662	0.3%
Winters α=0.9, β =0.1, γ = 0.9	1934.74077	6893079.611	0.5%	2218.49135	17311161.6	0.8%	148.6839269	58378.25384	0.2%	489.17644	380412.5685	0.4%
Winters α=0.9, β =0.4, γ = 0.1	1149.542685	3599114.794	0.2%	902.4157096	1741206.71	0.1%	110.7628373	40722.87714	0.2%	257.1738461	148231.5423	0.2%
Winters α=0.9, β =0.4, γ = 0.4	1295.833918	4180480.9	0.3%	1526.770118	4330220.13	0.3%	109.1723063	33490.80415	0.1%	276.0929522	146436.5862	0.1%
Winters α=0.9, β =0.4, γ = 0.9	1873.080607	7991723.187	0.5%	2800.131275	21023422.7	0.9%	131.5668553	41619.54206	0.2%	339.9755614	242253.8601	0.3%
Winters α=0.9, β =0.9, γ = 0.1	1218.331501	5660535.456	0.3%	1073.068168	3049409.241	0.2%	111.5211356	36912.16571	0.2%	222.2717867	186478.7866	0.2%
Winters α=0.9, β =0.9, γ = 0.4	1255.119845	7244226.098	0.4%	1908.310243	7142522.031	0.3%	111.4688112	28738.72811	0.2%	260.0956615	161190.3025	0.2%
Winters α=0.9, β =0.9 γ = 0.9	2717.780462	13065985.5	0.7%	3490.121985	32792820.81	0.9%	156.9700189	49808.01875	0.3%	351.4406967	316352.34	0.3%

BIBLIOTECA "ARTURO CARRILLO RAMOS" F.I.M.C.P.S.

METODO DE PRONOSTICO	#5			#6			#7			#8		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Promedio Móvil	28779.55926	37662.12481	2162.41%	35037.81	44796.62421	87.65%	7814.699133	10924.68346	18058938.96%	6421.73	9265.58 4592	624711.185
Suavización Exponencial α=0.1	18733.8692	31712.99822	1243.32%	34827.34924	38156.11626	115.87%	7984.887725	11081.69295	6049215.35%	9635.736829	10801.81176	3876865.405
Suavización Exponencial α=0.4	24488.27306	33652.33358	1841.47%	35448.80842	41033.20849	101.01%	7416.842146	10236.81955	12736305.26%	7719.372862	10191.13819	1188670.869
Suavización Exponencial α=0.9	27152.7663	31532.25844	942.90%	40622.83149	46843.21075	97.83%	8748.874694	10758.01948	12265396.86%	6900.195944	10825.67632	377383.409
Método Tendencia α=0.10, β=0.1	20149.36989	31914.32738	1733.75%	35845.48077	38931.34453	119.53%	7491.426914	10591.50751	7988327.23%	10213.76894	11312.34931	4095912.095
Método Tendencia α=0.10, β=0.4	23794.41844	33244.19029	2861.04%	33200.21147	38453.64224	100.87%	6698.766715	9983.367699	11950002.80%	10033.52477	11558.01478	3107687.005
Método Tendencia α=0.10, β=0.9	27541.21942	38666.09634	3905.14%	31487.67947	39467.91557	89.23%	6891.3036	10059.32357	14602815.97%	10362.34632	12038.73256	2333680.245
Método Tendencia α=0.4, β=0.1	26376.65735	34710.93056	2250.64%	36040.02478	42189.49417	100.37%	7709.400531	10459.25912	14784269.89%	7838.547793	10680.33603	881859.475
Método Tendencia α=0.4, β=0.4	28782.57824	37019.54756	2313.18%	38245.14865	45778.67275	100.45%	8690.729781	11511.1694	17712680.97%	8845.019012	11616.98349	1557717.005
Método Tendencia α=0.4, β=0.9	31146.18568	40051.63695	2605.35%	45358.47529	53567.94396	114.11%	10244.99948	13424.1346	21621490.21%	9750.980157	12092.45844	1986357.895
Método Tendencia α=0.9, β=0.1	28400.66581	43371.66453	1035.60%	42486.42486	49084.6861	99.32%	9057.155502	11242.1748	13176050.35%	7345.862177	11303.96485	568732.025
Método Tendencia α=0.9, β=0.4	35960.23588	49406.3533	1796.20%	46991.82253	55860.43878	102.35%	9736.612149	12323.03745	13744500.61%	7599.904669	12501.91008	626956.185
Método Tendencia α=0.9, β=0.9	45335.62346	63825.99886	2830.66%	52805.68433	66860.93375	110.31%	10555.38651	13791.75802	6375228.53%	9396.768558	13012.20829	778077.465
Winters α=0.1, β =0.10, γ=0.1	19565.489023	17696396.14	1401%	4273.316233	2859884273	9.60%	1258.246981	2986563.064	14.10%	765.7240532	2346691.191	13.83%
Winters α=0.1, β =0.1, γ=0.4	19768.216944	17967051.86	1413%	4255.897852	2863377.33	9.53%	1272.324376	3032832.238	14.33%	787.2466964	2436329.074	14.18%
Winters α=0.1, β =0.1, γ=0.9	3098.845522	1884824.315	1433%	4226.915112	2875460.37	9.41%	1296.84523	3119838.246	14.74%	812.0868649	2525850.665	14.47%
Winters α=0.1, β =0.4, γ=0.1	1083.245131	706309.6.036	7.32%	1677.075109	5885803.505	4.06%	667.8904036	874661.0812	7.34%	448.3158092	650187.5633	6.51%
Winters α=0.1, β =0.4, γ=0.4	1098.178161	7153815.384	7.35%	1693.958592	5885491.9	4.06%	667.301838	850461.7071	7.41%	445.3760143	687969.8929	6.43%
Winters α=0.1, β =0.4, γ=0.9	1124.120408	7314484.097	7.42%	1721.798432	5977746.47	4.08%	667.2835271	822186.9015	7.64%	439.9877899	700388.6332	6.30%
Winters α=0.1, β =0.9, γ=0.1	773.2148506	2772076.066	4.96%	1126.124144	3346711.118	2.52%	315.4852796	172361.2755	4.92%	261.0771491	265769.1198	3.67%
Winters α=0.1, β =0.9, γ=0.4	748.1780602	2570475.486	4.94%	1115.837229	3369794.903	2.50%	321.3860951	188343.7927	5.03%	262.3323045	278339.7545	4.53%

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METODO DE PRONOSTICO	#5			#6			#7			#8		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Winters α=0.1, β =0.9, γ = 0.9	705.629158	2265221.61	5.04%	1116.382894	3254079.215	2.50%	351.7689831	245054.8588	5.32%	297.1848667	377541.1921	4.80%
Winters α=0.4, β =0.1, γ = 0.1	483.5456074	1526230.886	3.48%	1111.15843	2287813.03	2.55%	263.8205711	162975.6892	3.60%	270.8898569	265982.1436	4.15%
Winters α=0.4, β =0.1, γ = 0.4	487.5093207	1501273.076	3.50%	1119.410903	2328464.468	2.54%	265.6498551	165663.4338	3.54%	281.6704222	300585.0029	4.17%
Winters α=0.4, β =0.1, γ = 0.9	494.2674295	1463248.07	3.54%	1132.818604	2443379.169	2.52%	268.8362336	174757.0033	3.83%	299.803027	367755.8329	4.19%
Winters α=0.4, β =0.4, γ = 0.1	176.771311	146746.865	1.54%	432.9221542	678563.0476	0.98%	91.57033677	36813.79784	1.51%	193.6494139	169521.2211	1.89%
Winters α=0.4, β =0.4, γ = 0.4	162.6764104	127452.7841	1.53%	429.7008491	708111.1713	0.95%	88.55856122	42832.34396	1.67%	212.5149	198008.6274	1.99%
Winters α=0.4, β =0.4, γ = 0.9	149.3950419	107326.0656	1.58%	454.9283078	807612.2139	0.98%	110.3475263	58826.73374	1.95%	243.4292312	253217.475	2.12%
Winters α=0.4, β =0.9, γ = 0.1	103.7455	51808.9506	0.96%	248.2682767	150252.3062	0.71%	59.82834955	21922.36918	1.01%	154.2891372	129203.3031	1.28%
Winters α=0.4, β =0.9, γ = 0.4	118.9827074	59437.67067	1.06%	272.231591	200873.835	0.70%	70.92242486	26012.79468	1.26%	165.0880965	144855.433	1.35%
Winters α=0.4, β =0.9, γ = 0.9	147.359248	84367.58378	1.28%	343.7589985	350716.207	0.78%	102.5325249	39017.57613	1.86%	188.291649	177058.4536	1.52%
Winters α=0.9, β =0.1, γ = 0.1	240.9011394	319297.0644	1.56%	487.2739285	439617.9723	1.14%	108.102129	28744.1022	1.55%	151.1691237	91321.84978	1.83%
Winters α=0.9, β =0.1, γ = 0.4	248.2308631	318469.9082	1.57%	498.8226596	477539.6612	1.13%	106.6331412	27741.73981	1.66%	155.8472311	99120.64866	1.83%
Winters α=0.9, β =0.1, γ = 0.9	260.7281184	324436.93	1.71%	535.3484147	589886.3464	1.12%	104.0743744	26372.42025	1.98%	179.6010578	119803.116	1.96%
Winters α=0.9, β =0.4, γ = 0.1	112.3313473	69441.98329	0.65%	168.1935445	67683.20585	0.49%	31.73498578	6275.297166	0.68%	104.4096212	51301.3467	0.88%
Winters α=0.9, β =0.4, γ = 0.4	122.3490717	75457.35704	0.74%	197.94728	83690.27948	0.63%	30.61664538	4743.185147	0.87%	110.5349284	52256.53995	0.93%
Winters α=0.9, β =0.4, γ = 0.9	141.0436714	95900.81482	0.96%	258.7623025	166328.25	0.63%	28.68082393	3007.87252	1.19%	120.7999811	64101.27365	1.02%
Winters α=0.9, β =0.9, γ = 0.1	116.2553239	97691.84295	0.47%	110.8394103	35243.83771	0.38%	19.33928701	841.1704833	0.53%	57.78680424	17348.95479	0.65%
Winters α=0.9, β =0.9, γ = 0.4	132.6534058	107956.9329	0.62%	142.7624495	42299.58631	0.45%	27.20410719	2191.994268	0.86%	60.20168711	22205.33172	0.75%
Winters α=0.9, β =0.9 γ = 0.9	162.7670997	141233.0156	0.92%	205.1294234	119694.3583	0.59%	52.17342899	11478.89781	1.53%	109.5860465	53708.41264	1.05%

METODO DE PRONOSTICO	#9			#10			#11			#12		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Promedio Móvil	5316.786667	6977.166051	414890.16%	18472.58667	21692.98769	841.05%	4937.933333	6242.944401	318.56%	9429.506533	11290.6637	49532086.82%
Suavización Exponencial α=0.1	3891.483295	5837.56537	283786.74%	20604.84545	33801.91647	1556.98%	4918.529427	6779.001713	148.30%	9420.171365	10611.23119	121569383.35%
Suavización Exponencial α=0.4	4228.464729	6155.011831	294546.92%	24636.95139	35274.7319	1242.41%	4883.095654	6349.401169	262.44%	7544.882623	9601.385174	50362890.89%
Suavización Exponencial α=0.9	4504.50267	7004.423989	156831.34%	25773.63082	41929.76076	363.30%	5051.911322	6563.250278	249.57%	6834.462281	9893.325026	4976078.46%
Método Tendencia α=0.10, β =0.1	3865.023611	5779.528435	308326.91%	22802.51997	34499.45005	2397.20%	4781.69702	6509.390172	181.65%	9824.092875	10978.11471	116221477.58%
Método Tendencia α=0.10, β =0.4	4323.195627	5925.808879	325768.42%	26640.16885	37112.49993	3599.49%	4688.930971	6252.202087	258.04%	8594.503669	10175.91083	61011529.99%
Método Tendencia α=0.10, β =0.9	4976.261995	6296.991025	354533.80%	28935.07787	37931.06536	2995.93%	4997.889	6481.752277	337.04%	7196.971322	10335.94872	18790359.09%
Método Tendencia α=0.4, β =0.1	4532.092637	6342.025255	316012.36%	26660.64975	36324.00635	1383.31%	5210.326788	6532.497827	307.87%	7564.113545	9948.620619	34537073.32%
Método Tendencia α=0.4, β =0.4	4964.568288	6878.128922	342316.57%	28934.72044	38538.17021	597.59%	6087.949476	7324.074531	375.89%	7505.426857	10639.64938	18074830.34%
Método Tendencia α=0.4, β =0.9	4951.442308	7715.407431	345772.22%	34802.96622	44297.22719	831.76%	6827.078319	8425.363618	419.44%	8583.875402	12293.53669	5389452.84%
Método Tendencia α=0.9, β =0.1	4792.266488	7339.569117	148207.94%	26687.75755	43841.34141	272.07%	5262.876751	6862.204891	266.21%	7061.954197	10314.71385	8168208.03%
Método Tendencia α=0.9, β =0.4	5719.648385	8403.840705	69680.83%	31095.57679	50128.17229	876.35%	5860.272259	7512.017963	283.33%	7721.203213	11078.36532	31693624.23%
Método Tendencia α=0.9, β =0.9	7559.21838	10414.10126	146007.96%	40960.19435	63167.38618	745.48%	6514.717289	8469.922113	265.47%	8083.722983	11480.68559	44983431.95%
Winters α=0.1, β =0.10, γ = 0.1	301.2428662	181216.9407	5.60%	2618.435141	22367060.24	13.65%	686.2093178	951517.1044	12.74%	1544.966141	3948130.3	15.08%
Winters α=0.1, β =0.1, γ = 0.4	1988.614892	14083046.29	30.34%	2618.649702	22368831.36	13.65%	695.1779034	966673.066	12.96%	1546.039493	3945374.292	15.09%
Winters α=0.1, β =0.1, γ = 0.9	2048.797726	14794816.72	31.37%	2619.007339	22371785.45	13.65%	710.7783156	998829.8807	13.34%	1547.819713	3940922.803	15.11%
Winters α=0.1, β =0.4, γ = 0.1	1324.339797	6542971.569	20.58%	1256.943874	4242788.988	7.17%	367.2036988	267683.8121	6.69%	620.2198452	744240.8241	6.58%
Winters α=0.1, β =0.4, γ = 0.4	1340.721361	6727843.887	20.86%	1257.080935	4243382.448	7.17%	366.3494653	258680.0205	6.77%	620.0875145	742784.012	6.58%
Winters α=0.1, β =0.4, γ = 0.9	1375.394952	7053809.639	21.54%	1257.309394	4244373.66	7.17%	365.3038547	249901.273	6.99%	619.8615517	740605.1967	6.58%
Winters α=0.1, β =0.9, γ = 0.1	706.5822267	2032165.266	11.97%	1052.552697	2647864.591	4.80%	152.628854	41014.97433	4.50%	472.0880812	392079.6468	4.24%
Winters α=0.1, β =0.9, γ = 0.4	718.3951235	2100009.855	12.38%	1052.60244	2648465.199	4.80%	159.4576142	47993.27274	4.59%	473.2422872	395051.1176	4.24%

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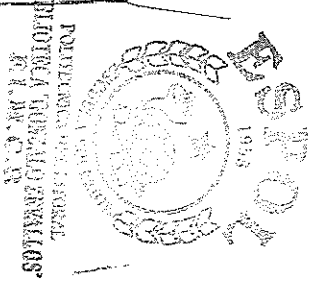
P.E. M.C.P.

METODO DE PRONOSTICO	#9			#10			#11			#12		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Winters α=0.1, β =0.9, γ = 0.9	741.1584794	2222910.766	12.88%	1052.685352	2649468.385	4.80%	183.7436741	72019.1688	4.86%	475.1668816	400295.7384	4.25%
Winters α=0.4, β =0.1, γ = 0.1	676.4108556	1508049.907	11.34%	658.7921731	1342350.738	3.41%	143.0272102	48753.69296	3.15%	409.4988815	268728.5083	3.95%
Winters α=0.4, β =0.1, γ = 0.4	684.40644	1546391.34	11.44%	658.9815015	1343414.188	3.41%	148.64568	54396.10892	3.19%	409.8575673	269304.3383	3.95%
Winters α=0.4, β =0.1, γ = 0.9	702.6733768	1613848.055	11.92%	659.2970805	1345188.87	3.41%	159.396992	69805.50272	3.46%	410.4404285	270429.6492	3.95%
Winters α=0.4, β =0.4, γ = 0.1	227.173672	173582.9189	5.06%	367.6254558	576620.9393	1.54%	46.36416584	9915.85018	1.30%	161.0393359	85714.85689	1.48%
Winters α=0.4, β =0.4, γ = 0.4	228.5487361	177001.6379	5.22%	367.6004536	577193.2706	1.54%	51.26915843	16601.38275	1.43%	162.8244773	87233.29137	1.49%
Winters α=0.4, β =0.4, γ = 0.9	238.1042244	184364.7592	5.58%	367.5587792	578150.0075	1.54%	76.39106996	35387.90275	1.77%	167.153617	89947.10849	1.51%
Winters α=0.4, β =0.9, γ = 0.1	160.1435667	94221.70491	3.27%	281.9769982	488185.258	0.99%	37.41090617	9099.289579	0.92%	138.1624441	63969.74461	1.05%
Winters α=0.4, β =0.9, γ = 0.4	164.9472369	97091.4215	3.48%	281.9733555	488875.8424	0.99%	50.76352961	16834.4226	1.15%	139.1370059	65135.36599	1.05%
Winters α=0.4, β =0.9, γ = 0.9	177.7107824	102889.0978	3.91%	281.9672838	490030.1939	0.99%	79.1418501	38734.9739	1.70%	140.7536042	67273.46706	1.07%
Winters α=0.9, β =0.1, γ = 0.1	283.2220006	237074.6354	5.08%	349.3047384	575283.8179	1.53%	69.02138021	14166.38525	1.41%	187.8864879	70022.18841	1.75%
Winters α=0.9, β =0.1, γ = 0.4	286.5305557	240356.7302	5.24%	349.5764963	576195.0153	1.53%	81.17746198	23878.37807	1.53%	188.2354223	70785.88765	1.75%
Winters α=0.9, β =0.1, γ = 0.9	292.5742696	246610.4411	5.52%	350.0294715	577718.0825	1.53%	102.5513485	51484.30253	1.80%	188.8114675	72257.99498	1.75%
Winters α=0.9, β =0.4, γ = 0.1	81.815843411	23866.55424	2.08%	271.169226	500017.898	0.70%	30.13933865	8741.615031	0.62%	96.79897938	36298.47752	0.76%
Winters α=0.9, β =0.4, γ = 0.4	81.65742301	23566.97317	2.09%	271.0845588	500485.333	0.70%	46.15496446	18647.6841	0.80%	97.40005189	37107.71855	0.70%
Winters α=0.9, β =0.4, γ = 0.9	83.58191977	23628.77834	2.31%	270.943433	501270.523	0.70%	73.97575854	31079.52335	1.10%	101.109353	38705.68512	0.71%
Winters α=0.9, β =0.9, γ = 0.1	42.04524871	7211.108273	1.17%	271.9185671	526430.0956	0.54%	31.35837574	8968.887754	0.49%	78.72654725	28773.87054	0.51%
Winters α=0.9, β =0.9, γ = 0.4	46.05208183	7434.548322	1.36%	271.7515563	526687.681	0.54%	52.71653051	22303.31729	0.80%	79.99593102	29633.24897	0.52%
Winters α=0.9, β =0.9 γ = 0.9	53.92223877	8813.026196	1.70%	271.4731774	527126.7317	0.54%	91.36988761	69938.7635	1.42%	83.99837073	31442.93867	0.54%



METODO DE PRONOSTICO	#13			#14			#15			#16		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Promedio Móvil	5658.08	6652.024948	247.10%	79236.07987	97083.38442	289920600.71%	5656.053333	7303.20196	64.75%	5833.32	6695.860388	179.80%
Suavización Exponencial α=0.1	4695.594514	6049.958564	167.59%	57211.05586	80792.77496	474873433.50%	7603.924943	8773.552668	63.48%	5028.757902	5982.337983	115.66%
Suavización Exponencial α=0.4	4802.72352	5771.333304	180.90%	65924.34764	80579.78407	398461568.31%	5673.091177	7132.743962	66.62%	4898.226958	5782.07502	128.17%
Suavización Exponencial α=0.9	4452.816087	5543.642967	126.16%	59451.43331	78906.26328	36705927.85%	6685.483843	8121.342638	86.43%	4436.871219	5687.031442	83.73%
Método Tendencia α=0.10, β =0.1	4995.891588	6352.839768	201.74%	62952.83344	82500.53686	633818531.32%	7021.947028	8126.567293	64.29%	5484.630914	6154.369291	144.78%
Método Tendencia α=0.10, β =0.4	5663.842853	7093.655182	248.55%	74517.43499	89466.14477	913894417.53%	5946.554276	7561.55034	66.50%	6145.33332	6799.884127	187.88%
Método Tendencia α=0.10, β =0.9	6196.761785	7430.703837	269.60%	83492.19781	96076.80871	1061192724.02%	4847.544103	7681.194207	68.63%	6252.07784	7154.199679	205.93%
Método Tendencia α=0.4, β =0.1	5248.19731	6952.766972	198.91%	71177.94498	84274.7376	462922709.09%	5329.968725	7208.651796	70.60%	5178.018213	6041.660471	143.26%
Método Tendencia α=0.4, β =0.4	5692.0463	6368.651966	190.47%	79760.03921	91592.07674	308934176.76%	5324.676071	7469.750113	77.00%	5677.718174	6379.341747	144.46%
Método Tendencia α=0.4, β =0.9	5812.93582	7277.915806	172.59%	92575.40889	107312.19	205060800.39%	5588.781801	7638.915669	82.00%	6432.083865	7364.512721	139.98%
Método Tendencia α=0.9, β =0.1	4718.736289	5809.361542	131.82%	61230.95382	82748.40047	15713395.41%	6857.880372	8444.944831	91.80%	4788.927717	5959.660973	84.90%
Método Tendencia α=0.9, β =0.4	5646.969839	6505.79255	140.20%	68562.83914	93308.38373	28114351.4.81%	7602.01871	9211.696278	102.08%	5557.963728	6727.170941	97.78%
Método Tendencia α=0.9, β =0.9	6228.76845	7076.538251	123.80%	71556.6144	105441.1439	24949949.01%	9637.027199	11104.115	122.56%	5958.497964	7593.454564	103.46%
Winters α=0.1, β =0.10, γ = 0.1	337.3854478	165023.4778	3.63%	5443.770669	66931959.09	8.79%	1089.018269	1597088.833	9.50%	447.6559105	300639.2149	5.80%
Winters α=0.1, β =0.1, γ = 0.4	344.2980915	170879.6044	3.69%	5508.214032	68142417.25	8.87%	1103.671298	1640355.249	9.71%	454.5887255	308314.7468	5.87%
Winters α=0.1, β =0.1, γ = 0.9	355.9815647	182403.3809	3.80%	5617.432256	70323864.82	9.01%	1129.245685	1727295.523	10.08%	466.3302841	322806.3052	5.99%
Winters α=0.1, β =0.4, γ = 0.1	217.9219985	73336.91712	2.44%	3066.600443	27376156.93	4.85%	620.7779329	568198.1721	5.18%	255.0658383	114548.4627	3.45%
Winters α=0.1, β =0.4, γ = 0.4	222.5516427	76934.97024	2.46%	3108.557027	27845324	4.88%	623.1437942	566269.4646	5.26%	259.7544064	118539.7997	3.48%
Winters α=0.1, β =0.4, γ = 0.9	231.2768846	84596.38063	2.51%	3179.767368	28727403.78	4.94%	633.2932582	573771.0604	5.56%	267.7110567	126656.4297	3.53%
Winters α=0.1, β =0.9, γ = 0.1	175.9210406	46622.16639	1.65%	2299.901476	1169349.03	3.26%	333.7997368	167788.255	3.48%	199.1645512	63637.53208	2.33%
Winters α=0.1, β =0.9, γ = 0.4	174.4889054	45979.75731	1.66%	2261.117784	11032876.22	3.29%	329.4711739	161955.4225	3.58%	197.4395519	62653.08159	2.34%

METODO DE PRONOSTICO	#13			#14			#15			#16		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Winters α=0.1, β =0.9, γ = 0.9	173.5016596	46905.09309	1.71%	2195.864858	10126524.36	3.35%	342.5684435	177546.1514	3.88%	195.2561219	62910.85361	3.40%
Winters α=0.4, β =0.1, γ = 0.1	91.10073585	17940.27917	1.01%	1361.309679	5872587.98	2.19%	231.0917955	104657.0556	2.35%	110.9857382	28980.50127	1.46%
Winters α=0.4, β =0.1, γ = 0.4	93.25302745	18974.02213	1.02%	1386.628733	5924540.266	2.21%	228.5267749	102692.5543	2.30%	113.7019581	30150.2354	1.48%
Winters α=0.4, β =0.1, γ = 0.9	99.32935746	21543.83454	1.07%	1429.638085	6070795.028	2.23%	233.9380301	103352.498	2.71%	118.6182049	32806.66329	1.52%
Winters α=0.4, β =0.4, γ = 0.1	65.05722775	8225.457104	0.60%	667.8978819	1137389.265	1.06%	86.15035284	18489.47315	1.09%	68.35683263	10641.56421	0.79%
Winters α=0.4, β =0.4, γ = 0.4	63.29463817	8357.832495	0.60%	638.4172198	1169613.135	1.05%	79.38723463	18708.40668	1.14%	65.53586991	10826.05865	0.78%
Winters α=0.4, β =0.4, γ = 0.9	62.33514157	9665.282769	0.62%	611.0029296	1324018.533	1.06%	99.58674939	23939.74872	1.52%	63.24069877	12076.73017	0.80%
Winters α=0.4, β =0.9, γ = 0.1	47.43959385	5062.95239	0.42%	535.2954188	879224.6005	0.67%	57.44216501	8322.827138	0.73%	44.89159173	5750.938691	0.50%
Winters α=0.4, β =0.9, γ = 0.4	47.50306776	5202.97919	0.44%	553.2130873	980592.637	0.72%	66.9578848	10570.37647	0.95%	44.27525901	5866.42663	0.54%
Winters α=0.4, β =0.9, γ = 0.9	53.93052784	6600.732524	0.54%	640.6212258	1245036.557	0.86%	104.5108811	20247.53658	1.52%	50.06326552	7052.777566	0.66%
Winters α=0.9, β =0.1, γ = 0.1	51.30371836	6197.736346	0.49%	711.328748	1592633.552	0.99%	94.3084035	16222.37319	1.05%	56.20707611	8262.553385	0.67%
Winters α=0.9, β =0.1, γ = 0.4	52.89837471	6443.591686	0.51%	733.3679976	1642642.024	1.00%	93.93967676	15147.29219	1.19%	57.78180831	8482.803938	0.69%
Winters α=0.9, β =0.1, γ = 0.9	59.77742536	7698.450602	0.59%	789.6295439	1797825.923	1.10%	93.93192869	14382.89107	1.45%	63.80359094	9509.521037	0.79%
Winters α=0.9, β =0.4, γ = 0.1	40.3128491	4177.977584	0.34%	472.7415742	749402.0093	0.50%	34.34691148	2708.705311	0.52%	37.65919586	3978.876651	0.40%
Winters α=0.9, β =0.4, γ = 0.4	41.15892392	4342.281655	0.36%	497.770892	796939.0317	0.55%	36.8498908	2608.902489	0.69%	38.58832716	4091.942076	0.44%
Winters α=0.9, β =0.4, γ = 0.9	47.9084139	5804.22458	0.45%	561.7467016	977630.3851	0.66%	43.43136313	3972.289246	1.01%	44.08952577	5233.874785	0.54%
Winters α=0.9, β =0.9, γ = 0.1	38.76510588	5376.826033	0.31%	465.3769597	929024.6112	0.40%	29.30420725	1717.507698	0.44%	34.06257582	4454.989305	0.35%
Winters α=0.9, β =0.9, γ = 0.4	42.99640032	5907.101315	0.36%	513.9962705	1012283.071	0.48%	41.11526847	2872.01409	0.78%	38.243931	4949.332309	0.41%
Winters α=0.9, β =0.9 γ = 0.9	61.21373784	8986.389318	0.54%	643.2461444	1339950.657	0.69%	65.73856939	8667.920664	1.35%	53.94743882	7613.632252	0.61%

METODO DE PRONOSTICO	#17			#18			#19			#20		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Promedio Móvil	23707.43333	26608.02146	88.72%	47884.66667	62527.15318	66.92%	6529.411333	8038.992877	503388.83%	12808.66667	15008.00717	23.15%
Suavización Exponencial, α=0.1	25480.8903	29396.29003	116.23%	38897.97339	52875.44847	50.93%	3842.044253	6655.064372	212408.34%	15200.61498	17961.12215	23.66%
Suavización Exponencial, α=0.4	24220.82856	26748.3357	83.66%	37622.56829	51662.89638	55.80%	5126.299361	7215.408739	353520.71%	15022.94141	17702.07513	25.89%
Suavización Exponencial, α=0.9	20008.39038	24398.46852	52.30%	35353.02044	52449.77865	52.73%	6075.843954	9000.440257	117261.37%	20304.98928	23073.98267	36.48%
Método Tendencia α=0.10, β =0.1	29135.26017	32511.40459	139.10%	41720.82815	54497.65551	60.29%	4027.735856	6601.014834	293452.59%	13624.8449	16070.18442	22.67%
Método Tendencia α=0.10, β =0.4	33268.4478	35405.49626	149.89%	51232.12241	60585.25648	78.10%	4505.893176	6646.562601	458802.46%	12968.84845	15889.63882	22.87%
Método Tendencia α=0.10, β =0.9	35922.13895	37086.02325	129.35%	59434.32589	66948.42918	91.63%	4964.494507	6874.008811	547356.05%	13007.67561	16284.64724	24.02%
Método Tendencia α=0.4, β =0.1	25122.23449	28394.97274	81.86%	41194.70626	54170.12747	63.01%	5421.820004	7381.677942	415479.54%	15285.43839	17838.2994	27.49%
Método Tendencia α=0.4, β =0.4	24039.9765	31156.78018	53.48%	43438.19636	58897.84324	64.35%	5977.457236	7883.847332	447465.25%	16248.51835	18960.65422	29.72%
Método Tendencia α=0.4, β =0.9	24603.83646	32933.06714	48.95%	44818.71187	66515.96246	60.28%	6807.35514	8987.80005	544401.83%	18035.4098	21056.60278	32.60%
Método Tendencia α=0.9, β =0.1	20370.29297	25545.02274	46.66%	36835.23576	54913.89747	54.90%	6348.168386	9407.61948	116830.32%	20980.40891	24071.67928	38.23%
Método Tendencia α=0.9, β =0.4	21203.19677	27550.28785	44.35%	44888.31209	61835.73683	59.01%	7155.855762	10741.58503	7848.55%	24142.16482	27440.39046	44.04%
Método Tendencia α=0.9, β =0.9	23246.2339	28634.89007	55.00%	54938.85517	72552.22209	65.24%	9995.250812	13647.46338	498604.97%	31861.69189	35406.69762	58.45%
Winters α=0.1, β =0.10, γ = 0.1	386.8354191	288001.7158	0.96%	2652.308061	10307487.38	3.46%	482.1865662	845694.8815	14.08%	1332.031954	2417893.35	2.57%
Winters α=0.1, β =0.1, γ = 0.4	388.96953	288605.9827	0.97%	2721.45365	10956316.08	3.55%	487.6465351	865061.4604	14.28%	1388.995221	2630657.099	2.70%
Winters α=0.1, β =0.1, γ = 0.9	392.5234525	289797.5863	0.97%	2839.107147	12275781.28	3.70%	497.1027697	901926.2163	14.63%	1500.766181	3165894.667	2.94%
Winters α=0.1, β =0.4, γ = 0.1	268.0396918	142931.2025	0.60%	1802.140979	4856345.228	2.36%	253.7186771	263107.4725	7.33%	1035.924737	1270565.232	1.94%
Winters α=0.1, β =0.4, γ = 0.4	269.9982502	142718.4277	0.60%	1860.352435	5378487.73	2.39%	257.1972299	269964.8845	7.39%	1066.904049	1370055.402	2.02%
Winters α=0.1, β =0.4, γ = 0.9	273.3215878	142574.3835	0.61%	1992.838718	6461614.767	2.52%	263.3830024	284709.9451	7.53%	1196.383431	1730748.414	2.31%
Winters α=0.1, β =0.9, γ = 0.1	222.7494578	106981.0149	0.46%	1430.753764	3999130.594	1.60%	148.3085059	128535.7648	4.92%	674.3037823	606393.7257	1.31%
Winters α=0.1, β =0.9, γ = 0.4	226.9054286	109107.0901	0.47%	1408.106662	3921582.341	1.62%	144.9547025	129426.0821	5.00%	698.3315056	651893.8392	1.37%

METODO DE PRONOSTICO	#17			#18			#19			#20		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Winters α=0.1, β =0.9, γ = 0.9	233.8285153	112846.3043	0.49%	1396.972935	4014137.141	1.71%	150.1974353	135714.3754	5.23%	802.9610227	976326.3338	1.57%
Winters α=0.4, β =0.1, γ = 0.1	198.2244231	87562.49175	0.40%	728.1948854	1268313.359	0.97%	107.560641	65122.78952	3.49%	405.1863858	239460.5407	0.81%
Winters α=0.4, β =0.1, γ = 0.4	200.8563185	88669.41689	0.40%	728.4312831	1323634.561	0.99%	106.9983464	65239.76527	3.53%	443.0794954	302358.0634	0.87%
Winters α=0.4, β =0.1, γ = 0.9	205.2406788	90635.91593	0.41%	790.7843845	1478435.773	1.11%	106.0243435	65662.1735	3.74%	540.5627664	530870.1525	1.06%
Winters α=0.4, β =0.4, γ = 0.1	174.4560266	67930.89762	0.34%	491.0734724	565916.1814	0.58%	41.56047212	18013.93745	1.52%	254.3570114	106846.9079	0.50%
Winters α=0.4, β =0.4, γ = 0.4	177.3096652	69709.69502	0.34%	461.1251712	507686.0599	0.58%	37.26159709	15913.54601	1.54%	265.9786213	161962.0554	0.52%
Winters α=0.4, β =0.4, γ = 0.9	182.0633082	72821.95391	0.35%	442.1602453	494710.9119	0.65%	34.41835602	12862.71442	1.83%	365.8029491	404222.8473	0.70%
Winters α=0.4, β =0.9, γ = 0.1	150.2851077	54003.01912	0.30%	278.3692237	169782.8626	0.41%	16.85099263	1507.10676	1.00%	194.0881012	73171.82635	0.37%
Winters α=0.4, β =0.9, γ = 0.4	153.1056778	55625.44949	0.31%	290.8544971	156551.5266	0.48%	14.93687115	656.2255828	1.20%	252.6007543	147674.3167	0.48%
Winters α=0.4, β =0.9, γ = 0.9	157.8042475	58494.16978	0.31%	395.6826086	261735.791	0.65%	18.70154479	1032.560254	1.69%	428.5190735	449927.4975	0.80%
Winters α=0.9, β =0.1, γ = 0.1	147.648772	48389.60252	0.29%	356.2977362	281102.5361	0.47%	42.20709752	10279.5767	1.55%	203.0876478	73770.41185	0.41%
Winters α=0.9, β =0.1, γ = 0.4	149.5612606	49391.50813	0.29%	374.332728	276498.4269	0.52%	40.40576417	9491.709658	1.66%	267.288655	150360.2973	0.51%
Winters α=0.9, β =0.1, γ = 0.9	152.747329	51204.5052	0.29%	425.5416147	326480.771	0.64%	37.28607212	8206.071093	1.91%	376.7428	460238.5784	0.68%
Winters α=0.9, β =0.4, γ = 0.1	129.196101	47908.85226	0.25%	217.5628022	98850.95655	0.33%	9.396036049	646.5226428	0.67%	145.7135738	53536.69356	0.29%
Winters α=0.9, β =0.4, γ = 0.4	131.2571361	49134.96908	0.25%	237.1038208	111153.4566	0.38%	8.598776648	408.1636236	0.83%	212.3332017	142105.841	0.39%
Winters α=0.9, β =0.4, γ = 0.9	134.9641328	51378.63029	0.26%	295.5664195	216295.528	0.51%	7.24540027	281.7780869	1.11%	362.4812087	537374.2226	0.63%
Winters α=0.9, β =0.9, γ = 0.1	138.5793829	63718.45926	0.30%	187.6950536	110324.5015	0.30%	4.278050322	46.4538562	0.51%	145.4115363	58174.57898	0.28%
Winters α=0.9, β =0.9, γ = 0.4	141.9171835	65511.49048	0.30%	255.7092023	147973.6223	0.41%	5.095422625	59.59721714	0.79%	264.1346254	188874.1512	0.49%
Winters α=0.9, β =0.9 γ = 0.9	147.4772745	68856.87729	0.31%	395.8658786	331787.3012	0.66%	7.071231559	113.2212198	1.36%	468.8274876	797411.1435	0.84%

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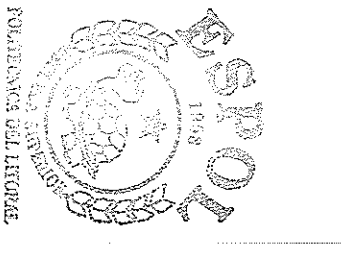
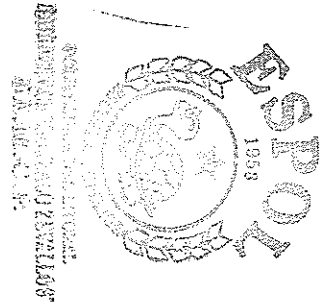
BIBLIOTECA "GENERAL ZEVALLOS"
U.A.N.L.

METODO DE PRONOSTICO	#21			#22			#23			#24		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Promedio Móvil	4214.2	5131.268362	811120.07%	5536.956667	6258.870279	978343.93%	4002.72	5139.513042	334.53%	16647.2	23115.2348	150.87%
Suavización Exponencial α=0.1	5158.637726	5781.906285	682326.96%	4200.678865	4976.03372	473801.93%	4101.764681	4973.158623	204.70%	20443.42597	26638.39986	133.27%
Suavización Exponencial α=0.4	5084.774103	5838.048601	750388.61%	4337.641049	5048.673712	624176.28%	3554.456905	4752.060119	225.36%	18536.70915	24301.38999	144.81%
Suavización Exponencial α=0.9	5846.870466	7035.726356	650810.58%	4104.957862	4860.17989	421410.50%	3807.597609	4580.500744	137.45%	18804.49127	26026.89688	125.01%
Método Tendencia α=0.10, β =0.1	4854.963441	5463.283887	745240.90%	4487.719512	5100.350992	577208.17%	4241.980022	5140.473591	250.87%	21388.81142	27029.76466	183.90%
Método Tendencia α=0.10, β =0.4	4693.840678	5419.363423	813324.28%	4944.107355	5513.816879	740025.26%	4521.472091	5722.360665	325.58%	25161.04429	30070.7613	277.30%
Método Tendencia α=0.10, β =0.9	4779.115853	5642.908597	902279.71%	5094.533952	5770.529808	837008.20%	4734.770372	6058.628171	369.91%	28764.30326	31682.42803	291.63%
Método Tendencia α=0.4, β =0.1	4996.946378	5960.48174	803183.97%	5865.811119	6839.737447	810438.25%	3775.115401	4978.539017	253.65%	21039.0531	25283.91945	170.47%
Método Tendencia α=0.4, β =0.4	5387.12576	6539.701802	835431.83%	5019.668804	5706.499576	726161.96%	4269.934763	5280.407433	255.20%	21511.02696	25967.69363	130.03%
Método Tendencia α=0.4, β =0.9	6694.517742	7450.691444	749503.39%	5865.811119	6839.737447	810438.25%	5271.373366	6083.486759	253.75%	22744.87136	28707.60449	140.15%
Método Tendencia α=0.9, β =0.1	6050.963687	7351.065615	657410.20%	4191.686157	5106.251304	424975.94%	4029.972768	4800.28663	137.63%	19937.93726	27157.08019	129.65%
Método Tendencia α=0.9, β =0.4	6829.297195	8326.117062	589694.94%	4980.234945	5784.950401	304119.10%	4573.594712	5398.492588	96.49%	24579.74157	30624.35095	136.90%
Método Tendencia α=0.9, β =0.9	8743.601562	10488.85672	478248.06%	5511.170273	6246.859032	144191.43%	5096.46172	6045.821231	222.39%	30445.99127	37481.2332	170.72%
Winters α=0.1, β =0.10, γ = 0.1	365.7526471	195707.4797	3.78%	292.0562425	150700.2098	5.62%	366.1805228	205095.1806	5.92%	3179.782871	16321541.76	12.95%
Winters α=0.1, β =0.1, γ = 0.4	377.0396012	208004.7934	3.93%	296.4848741	154417.3682	5.69%	371.5107526	209986.9533	5.98%	3207.185825	16320751.63	13.02%
Winters α=0.1, β =0.1, γ = 0.9	396.610308	237902.2892	4.18%	303.9771425	161379.8556	5.81%	380.5262184	219148.7307	6.10%	3253.48437	16875083.39	13.14%
Winters α=0.1, β =0.4, γ = 0.1	248.5837789	82916.54818	2.50%	167.0145879	58381.74245	3.37%	209.7944089	77226.92676	3.51%	1617.700082	4961080.316	6.82%
Winters α=0.1, β =0.4, γ = 0.4	251.4436876	86030.72993	2.57%	170.0248707	60259.14169	3.40%	213.2439905	79847.96733	3.53%	1634.020843	5064004.777	6.84%
Winters α=0.1, β =0.4, γ = 0.9	272.2298482	101066.0429	2.91%	175.127123	64047.01757	3.44%	219.0900034	85091.35531	3.58%	1663.603079	5253400.361	6.87%
Winters α=0.1, β =0.9, γ = 0.1	143.7822194	30103.78435	1.69%	131.0585465	31555.77239	2.27%	168.0233875	44065.09135	2.36%	1280.893888	2966557.371	4.57%
Winters α=0.1, β =0.9, γ = 0.4	149.7294595	33538.87593	1.76%	129.8224338	31094.58708	2.29%	166.8767904	43431.30156	2.38%	1277.24805	2918047.833	4.59%



METODO DE PRONOSTICO	#21			#22			#23			#24		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Winters α=0.1, β =0.9, γ = 0.9	175.0141425	53018.07555	2.00%	128.0091168	31201.27943	2.34%	165.0969333	43479.42561	2.43%	1271.077448	2937054.609	4.63%
Winters α=0.4, β =0.1, γ = 0.1	92.48161695	15513.61224	1.03%	73.2996264	14527.33799	1.42%	92.15864037	19398.19069	1.49%	774.5213558	1282718.402	3.22%
Winters α=0.4, β =0.1, γ = 0.4	101.3200284	19693.3791	1.11%	75.10803696	15079.33155	1.44%	94.34987033	20300.81404	1.51%	790.7892321	1333377.541	3.24%
Winters α=0.4, β =0.1, γ = 0.9	123.9837208	33798.93389	1.34%	78.17689301	16295.67631	1.47%	98.13638934	22256.94434	1.53%	818.2783984	1430059.874	3.26%
Winters α=0.4, β =0.4, γ = 0.1	49.46771724	5525.037013	0.59%	46.09480502	5545.971393	0.77%	56.27279213	7390.682756	0.80%	397.3198608	431288.7309	1.46%
Winters α=0.4, β =0.4, γ = 0.4	54.65430532	9581.411296	0.62%	44.25281101	5623.535126	0.76%	54.17303374	7699.905888	0.79%	388.5743849	457923.0378	1.41%
Winters α=0.4, β =0.4, γ = 0.9	82.47825144	25176.10302	0.86%	42.72895462	6146.714744	0.79%	52.66899748	8828.568226	0.81%	375.9847007	519223.3801	1.43%
Winters α=0.4, β =0.9, γ = 0.1	39.70867385	4201.341301	0.41%	32.97948984	3131.637546	0.50%	39.68990304	4759.774937	0.51%	301.3252762	325385.6713	0.91%
Winters α=0.4, β =0.9, γ = 0.4	53.89025697	9061.723628	0.56%	32.0020546	3111.725243	0.53%	39.80444403	5053.880663	0.54%	310.6983861	364205.7778	0.94%
Winters α=0.4, β =0.9, γ = 0.9	89.17985351	27322.528	0.95%	34.30927544	3469.527087	0.61%	45.33644784	6168.912067	0.66%	348.7566702	448240.584	1.05%
Winters α=0.9, β =0.1, γ = 0.1	46.32709014	4908.949091	0.49%	37.60512879	4026.754105	0.66%	46.95295818	5834.789313	0.68%	370.2303074	315879.2365	1.45%
Winters α=0.9, β =0.1, γ = 0.4	61.74328457	10765.73513	0.61%	38.2594797	4063.615118	0.67%	48.17238206	6010.125741	0.69%	385.817605	349359.5208	1.45%
Winters α=0.9, β =0.1, γ = 0.9	89.26251726	32405.10923	0.81%	41.76052318	4352.608493	0.76%	52.80613693	6677.809693	0.76%	412.7152179	423443.4043	1.50%
Winters α=0.9, β =0.4, γ = 0.1	32.01420987	3475.955379	0.33%	26.2997411	1907.597093	0.30%	33.64263909	3153.516891	0.41%	208.132848	177566.2535	0.63%
Winters α=0.9, β =0.4, γ = 0.4	50.254717	10100.04814	0.45%	26.66073672	1893.988051	0.43%	34.34321061	3203.236069	0.44%	216.7224527	201371.8501	0.67%
Winters α=0.9, β =0.4, γ = 0.9	86.10584463	37555.89155	0.72%	29.70871333	2210.531518	0.52%	38.55652198	3823.929373	0.53%	248.7075596	266976.3817	0.76%
Winters α=0.9, β =0.9, γ = 0.1	35.03956046	3954.796137	0.31%	24.19634829	2060.624746	0.34%	30.60807278	3303.411518	0.35%	170.1957526	139807.898	0.47%
Winters α=0.9, β =0.9, γ = 0.4	62.7958327	13517.22791	0.55%	26.77247404	2229.497467	0.40%	33.36920408	3589.818266	0.41%	189.1644319	168508.6244	0.54%
Winters α=0.9, β =0.9 γ = 0.9	110.6501677	55295.79801	0.97%	36.63970359	3218.067127	0.58%	44.98200101	5213.98965	0.59%	236.0009295	261408.0622	0.68%



METODO DE PRONOSTICO	#25			#26			#27		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Promedio Móvil	6897.97	8018.497795	986252.79%	3990.766667	4846.763549	337.30%	3496.153333	4566.316201	699243.86%
Suavización Exponencial, α=0.1	9423.657709	11071.80034	973095.04%	5251.548685	5649.81667	330.44%	4304.712716	5654.649584	489781.72%
Suavización Exponencial, α=0.4	8070.375155	9615.095774	963270.02%	4511.891787	5052.562378	291.14%	4517.919102	5556.46947	537157.16%
Suavización Exponencial, α=0.9	8196.691447	9512.868417	796483.12%	4511.891787	5052.562378	291.14%	4949.278603	6095.333082	314261.94%
Método Tendencia α=0.10, β =0.1	10446.8285	11777.4791	1278857.48%	5725.120737	6025.710082	431.93%	4871.018931	5878.479376	597546.52%
Método Tendencia α=0.10, β =0.4	12564.3137	13724.46067	1776593.74%	6351.325508	6963.843176	584.27%	5605.543187	6563.001184	811169.23%
Método Tendencia α=0.10, β =0.9	12748.70872	14559.1984	1899901.90%	6517.099612	7412.438803	604.68%	5572.214222	7085.246329	1037860.34%
Método Tendencia α=0.4, β =0.1	8678.382783	10134.12618	1052845.69%	4492.872468	5325.629404	315.58%	4766.295449	5816.348222	612880.08%
Método Tendencia α=0.4, β =0.4	8822.890002	10401.59484	663967.59%	4418.825698	5613.711985	244.22%	5170.77956	6414.339091	570168.67%
Método Tendencia α=0.4, β =0.9	9549.452023	10634.50886	169892.76%	4621.288705	5869.723347	237.31%	5657.381523	7255.447552	140641.68%
Método Tendencia α=0.9, β =0.1	8734.189506	9922.076408	772448.69%	3770.493979	5161.456906	151.21%	5109.11304	6369.021675	296801.51%
Método Tendencia α=0.9, β =0.4	9868.056085	11042.55111	608414.25%	4459.433088	5748.786987	197.91%	5362.074792	7181.224367	125782.36%
Método Tendencia α=0.9, β =0.9	9868.056085	11042.55111	608414.25%	5274.077687	6849.638726	254.45%	6835.434307	8872.579762	53713.54%
Winters α=0.1, β =0.10, γ = 0.1	952.7320964	1453164.346	7.95%	402.9248428	286905.2315	6.99%	390.7742028	265637.366	6.43%
Winters α=0.1, β =0.1, γ = 0.4	956.6944254	1461793.944	7.97%	403.6010976	287574.199	7.00%	393.9172778	268792.1835	6.46%
Winters α=0.1, β =0.1, γ = 0.9	963.3249476	1476615.99	8.00%	404.7297885	288702.4578	7.01%	399.1920995	274414.0257	6.52%
Winters α=0.1, β =0.4, γ = 0.1	484.5980689	422949.3219	4.46%	202.1310092	81928.10562	4.02%	196.0619687	63501.20469	3.75%
Winters α=0.1, β =0.4, γ = 0.4	487.6893833	428711.9996	4.47%	202.6826894	82399.75841	4.02%	198.1155853	65665.80295	3.77%
Winters α=0.1, β =0.4, γ = 0.9	492.8634432	438712.7675	4.48%	203.6035288	83198.05399	4.02%	201.5645276	69634.28152	3.79%
Winters α=0.1, β =0.9, γ = 0.1	455.9440545	356406.0589	3.01%	201.8078322	75457.3533	2.71%	175.7005932	62457.52411	2.53%
Winters α=0.1, β =0.9, γ = 0.4	456.3460439	356887.335	3.01%	201.920809	75516.12085	2.71%	176.8276014	63619.72743	2.54%

METODO DE PRONOSTICO	#25			#26			#27		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Winters α=0.1, β =0.9, γ = 0.9	457.255048	358067.9895	3.02%	202.1091592	75625.30809	2.71%	179.0075746	65881.94646	2.55%
Winters α=0.4, β =0.1, γ = 0.1	246.2066628	129154.8603	1.99%	105.3040814	27563.18085	1.76%	96.50225557	23635.94698	1.62%
Winters α=0.4, β =0.1, γ = 0.4	248.4716471	131587.3403	2.00%	105.6917468	27740.2087	1.76%	98.49878003	24812.22273	1.63%
Winters α=0.4, β =0.1, γ = 0.9	252.2627729	135860.9769	2.00%	106.3388353	28041.452	1.76%	101.8822231	26939.83503	1.64%
Winters α=0.4, β =0.4, γ = 0.1	159.3435893	64200.341	1.00%	74.14820234	14367.4259	0.92%	68.6049719	14662.8879	0.86%
Winters α=0.4, β =0.4, γ = 0.4	158.2352676	64852.78999	1.00%	73.95323025	14380.245	0.92%	67.90121176	14982.67266	0.85%
Winters α=0.4, β =0.4, γ = 0.9	156.5039773	66230.77597	0.99%	73.62773085	14409.65725	0.91%	66.79947665	15749.05584	0.85%
Winters α=0.4, β =0.9, γ = 0.1	113.7718357	38935.69447	0.64%	51.49486792	7406.75518	0.60%	46.17396582	8471.426286	0.56%
Winters α=0.4, β =0.9, γ = 0.4	112.9093148	39670.0753	0.64%	51.22121572	7408.416655	0.60%	44.85854486	8612.802831	0.55%
Winters α=0.4, β =0.9, γ = 0.9	112.3404301	41231.05703	0.64%	50.76482713	7420.700323	0.59%	43.86322015	9110.662491	0.57%
Winters α=0.9, β =0.1, γ = 0.1	120.359654	36036.84239	0.91%	54.0141057	8253.075353	0.81%	44.27803773	7129.592096	0.74%
Winters α=0.9, β =0.1, γ = 0.4	121.9027513	36776.21888	0.91%	54.16137383	8286.327622	0.81%	45.38290297	7325.031038	0.75%
Winters α=0.9, β =0.1, γ = 0.9	124.4861272	38279.00137	0.91%	54.5622953	8349.312867	0.81%	47.23939033	7814.585519	0.75%
Winters α=0.9, β =0.4, γ = 0.1	87.39534014	20659.69479	0.50%	41.72634414	4363.434618	0.48%	30.52883909	3724.550172	0.45%
Winters α=0.9, β =0.4, γ = 0.4	85.98983986	20848.74667	0.49%	41.45911556	4354.272306	0.48%	29.33018579	3655.990776	0.44%
Winters α=0.9, β =0.4, γ = 0.9	84.65144145	21556.44901	0.49%	41.01330548	4350.122223	0.47%	29.81110962	3783.52186	0.46%
Winters α=0.9, β =0.9, γ = 0.1	68.3101351	15303.0572	0.42%	33.27721082	3724.878287	0.41%	20.02429855	1639.021955	0.39%
Winters α=0.9, β =0.9, γ = 0.4	66.70304191	15484.43216	0.40%	32.84290711	3711.512623	0.41%	18.78994742	1600.06045	0.37%
Winters α=0.9, β =0.9 γ = 0.9	66.54801577	16504.99089	0.41%	32.31696178	3709.227031	0.40%	21.47547443	2054.197085	0.42%

METODO DE PRONOSTICO	#28			#29			#30		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Promedio Móvil	3441.193333	4244.734194	914607.92%	4447.98	5083.030022	793546.82%	2550.55	3252.142011	416857.90%
Suavización Exponencial α=0.1	3162.581229	3813.132964	449549.70%	4444.180624	5947.510689	351871.01%	2622.461113	3127.584831	913009.92%
Suavización Exponencial α=0.4	2846.632736	3739.38642	708735.33%	4444.180624	5947.510689	351871.01%	2652.996811	3284.09463	829667.16%
Suavización Exponencial α=0.9	2644.249338	3693.899173	818499.95%	7142.135393	8120.738283	507011.04%	3178.182128	3731.766473	661958.56%
Método Tendencia α=0.10, β =0.1	3273.207314	3935.137446	532400.84%	4627.721716	5963.943191	384749.66%	2668.22898	3178.536501	924272.11%
Método Tendencia α=0.10, β =0.4	3581.960118	4344.346942	673751.33%	5002.022926	6231.192012	445374.26%	2552.008072	3091.363131	837577.09%
Método Tendencia α=0.10, β =0.9	3581.568868	4624.345762	804375.99%	5176.24411	6442.908442	543220.30%	2621.672516	3199.137988	819982.79%
Método Tendencia α=0.4, β =0.1	2904.770829	3910.589224	784869.14%	5498.376625	6596.589259	648265.76%	2680.951184	3379.574262	852466.29%
Método Tendencia α=0.4, β =0.4	3189.247653	4184.173933	860311.22%	5705.501985	6911.054518	806120.47%	2924.617752	3707.060021	852556.87%
Método Tendencia α=0.4, β =0.9	4064.838806	4820.621155	922318.00%	6389.389737	7644.764295	1009054.49%	3538.373952	4321.027422	821402.41%
Método Tendencia α=0.9, β =0.1	2822.744373	3872.993207	867251.21%	7516.856728	8488.362809	539369.66%	3333.265472	3901.990459	645855.55%
Método Tendencia α=0.9, β =0.4	3496.859541	4372.061786	917643.63%	8628.657506	9743.752051	516830.44%	3748.837235	4383.930105	553544.80%
Método Tendencia α=0.9, β =0.9	3930.836913	4957.839181	869711.69%	10650.46679	12546.57865	88943.78%	4710.666374	5198.192564	659847.09%
Winters α=0.1, β =0.10, γ = 0.1	238.6052852	89496.20384	5.16%	382.5707488	277042.9425	6.83%	387.039397	242623.9477	11.33%
Winters α=0.1, β =0.1, γ = 0.4	242.594994	92033.70354	5.23%	388.8694336	285845.7149	6.93%	386.0031802	243160.9345	11.27%
Winters α=0.1, β =0.1, γ = 0.9	249.3494939	96855.62372	5.36%	399.5985591	302899.9335	7.11%	384.2227722	244317.9826	11.18%
Winters α=0.1, β =0.4, γ = 0.1	142.4389601	37084.33829	3.16%	215.0742889	89482.19314	3.94%	153.5620514	53685.89455	4.84%
Winters α=0.1, β =0.4, γ = 0.4	145.0571448	38427.50254	3.18%	218.2447477	94313.92712	3.97%	154.6123153	54073.27361	4.85%
Winters α=0.1, β =0.4, γ = 0.9	149.4997564	41176.81138	3.23%	223.670117	104532.3352	4.04%	156.3419733	55140.90146	4.86%
Winters α=0.1, β =0.9, γ = 0.1	114.594328	20366.59833	2.13%	153.6704587	54050.04132	2.65%	107.8329565	26027.79373	3.07%
Winters α=0.1, β =0.9, γ = 0.4	113.5239053	19866.77976	2.14%	152.589446	55326.97657	2.67%	107.9558455	25885.99634	3.05%

METODO DE PRONOSTICO	#28			#29			#30		
	EMA	EMRC	PAME	EMA	EMRC	PAME	EMA	EMRC	PAME
Winters α=0.1, β =0.9, γ = 0.9	111.7796712	19714.77849	2.20%	153.1710993	59951.41538	2.77%	108.1993472	26221.50841	3.03%
Winters α=0.4, β =0.1, γ = 0.1	60.81555258	8691.895025	1.32%	92.485331	24777.12501	1.71%	102.7169685	19105.72533	2.99%
Winters α=0.4, β =0.1, γ = 0.4	62.27521357	9073.860973	1.34%	94.6069118	26985.83287	1.73%	103.5427055	19395.53778	2.98%
Winters α=0.4, β =0.1, γ = 0.9	65.29704806	9960.007731	1.39%	99.67404679	31601.90833	1.82%	104.9028349	20112.74325	2.97%
Winters α=0.4, β =0.4, γ = 0.1	38.37472624	3287.515534	0.73%	51.06138329	11055.71122	0.87%	38.41363901	4917.775768	1.12%
Winters α=0.4, β =0.4, γ = 0.4	36.84979192	3411.170905	0.72%	48.92497479	12013.16544	0.86%	37.89574612	4903.240766	1.10%
Winters α=0.4, β =0.4, γ = 0.9	36.30917887	3958.365987	0.75%	49.03805349	14848.13783	0.93%	40.4871559	5128.363997	1.13%
Winters α=0.4, β =0.9, γ = 0.1	27.8681168	2171.890029	0.48%	35.09454239	6992.452756	0.56%	27.97513049	2537.6859	0.80%
Winters α=0.4, β =0.9, γ = 0.4	28.17621776	2307.94982	0.51%	36.3153359	7605.17336	0.62%	29.020747	2648.20984	0.79%
Winters α=0.4, β =0.9, γ = 0.9	32.58152298	2877.967667	0.64%	47.59594135	9838.321631	0.84%	32.36721063	3081.191594	0.85%
Winters α=0.9, β =0.1, γ = 0.1	31.51523285	2532.239963	0.62%	44.14536039	6803.841125	0.78%	45.15672997	4246.945999	1.33%
Winters α=0.9, β =0.1, γ = 0.4	32.1225482	2587.167857	0.64%	44.0680075	6700.242707	0.81%	46.86268588	4530.882805	1.32%
Winters α=0.9, β =0.1, γ = 0.9	35.38260524	2867.689135	0.73%	46.03853935	6668.953575	0.94%	49.70978634	5181.260828	1.34%
Winters α=0.9, β =0.4, γ = 0.1	23.25937458	1428.761523	0.39%	27.810635	3022.687778	0.43%	19.24924706	1161.118558	0.55%
Winters α=0.9, β =0.4, γ = 0.4	23.98327781	1447.779295	0.42%	27.79846747	2577.696433	0.50%	21.35620338	1337.501114	0.59%
Winters α=0.9, β =0.4, γ = 0.9	26.90910655	1748.235227	0.52%	28.11906203	2098.846598	0.64%	24.88070588	1813.951117	0.67%
Winters α=0.9, β =0.9, γ = 0.1	21.60979656	1585.132549	0.34%	22.06680781	1754.824385	0.35%	14.48558357	637.323411	0.42%
Winters α=0.9, β =0.9, γ = 0.4	23.99450745	1735.342556	0.40%	24.17397329	1908.840466	0.47%	17.48311222	812.1688841	0.49%
Winters α=0.9, β =0.9 γ = 0.9	137.1888926	74414.93621	3.15%	37.63983414	3768.914403	0.76%	22.52645752	1361.235709	0.61%

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POLITECNICA DEL LITORAL
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F.I.M.C.P.

APENDICE 8

PRONOSTICOS PARA AÑO 2003 Y 2004 PARA PRODUCTOS IMPORTADOS

MES	PRONOSTICOS														
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15
Feb-03	267,857	791,126	137,097	104,895	22,100	45,849	1,557	17,392	2,093	127,854	14,889	25,519	12,916	99,727	2,448
Mar-03	725,629	725,894	173,993	89,736	3,628	18,878	19,865	44,225	6,105	9,038	2,861	26,177	19,804	132,102	13,662
Abr-03	842,451	737,660	94,183	88,897	2,800	62,369	3,295	11,076	5,518	22,497	2,058	11,318	19,653	56,780	6,145
May-03	676,589	1,201,745	143,732	114,966	2,702	162,664	10,414	6,060	8,128	20,702	2,443	13,611	11,084	33,723	19,509
Jun-03	423,795	907,299	1,134	53,135	57,266	60,982	4,661	295	1,693	11,094	611	9,557	12,355	38,581	8,081
Jul-03	445,962	250,361	74,113	77,464	6,499	46,202	7,450	5,377	0	37,750	608	14,612	11,625	182,264	19,106
Ago-03	861,372	568,716	10,985	108,603	117,376	25,839	4,468	0	23,694	70,148	6,318	26,704	23,959	315,962	13,573
Sep-03	865,327	1,093,773	87,302	34,543	1,556	39,711	14,169	0	17,203	13,711	11,132	12,147	17,190	86,400	25,557
Oct-03	270,333	1,089,404	57,452	95,138	696	98,105	18,663	0	2,907	3,271	11,101	5,817	10,814	16,090	21,801
Nov-03	278,677	605,886	52,717	67,646	452	53,238	40,442	0	7,970	2,053	22,846	72	942	3,116	24,323
Dic-03	494,267	410,693	37,259	36,499	203	16,632	19,395	0	7,658	120	13,253	0	1,821	0	27,038
Ene-04	537,312	890,377	91,040	130,548	0	111,283	0	18,906	4,664	579	745	33,415	10,213	33,673	5,343
Feb-04	320,168	945,617	163,841	125,608	26,462	54,901	1,864	20,829	2,506	153,108	17,827	30,560	15,467	119,417	2,931
Mar-04	865,068	865,377	207,392	107,169	4,333	22,545	23,720	52,825	7,290	10,795	3,417	31,264	23,651	157,762	16,314
Abr-04	1,001,788	877,170	111,977	105,891	3,335	74,292	3,925	13,195	6,572	26,799	2,451	13,482	23,411	67,633	7,319
May-04	802,570	1,425,498	170,466	136,600	3,210	193,271	12,372	7,201	9,656	24,599	2,903	16,173	13,169	40,068	23,178
Jun-04	501,300	1,073,648	1,341	62,979	67,872	72,279	5,524	349	2,007	13,150	724	11,329	14,644	45,728	9,577
Jul-04	526,502	295,573	87,484	91,597	7,684	54,632	8,808	6,359	0	44,639	719	17,279	13,746	215,514	22,589
Ago-04	1,014,626	669,896	12,937	128,121	138,464	30,483	5,270	0	27,950	82,758	7,453	31,504	28,264	372,740	16,011
Sep-04	1,017,035	1,285,523	102,593	40,659	1,832	46,742	16,676	0	20,248	16,139	13,101	14,299	20,234	101,697	30,080
Oct-04	317,045	1,277,637	67,370	111,739	818	115,222	21,917	0	3,414	3,841	13,037	6,832	12,701	18,898	25,603
Nov-04	326,147	709,088	61,688	79,281	529	62,394	47,392	0	9,340	2,406	26,772	85	1,104	3,652	28,503
Dic-04	577,283	479,669	43,511	42,688	238	19,452	22,681	0	8,956	141	15,498	0	2,129	0	31,619
Total	14,407,615	19,920,531	2,067,581	2,143,123	470,055	1,580,643	314,529	219,832	189,453	697,673	193,388	379,583	329,400	2,169,569	404,764

ESPOL
1959
POLITECNICA NACIONAL
BIBLIOTECA "GUILLERMO MORALES"
F.I.M.C.P.

MES	PRONOSTICOS														
	#16	#17	#18	#19	#20	#21	#22	#23	#24	#25	#26	#27	#28	#29	#30
Feb-03	9,837	97,648	59,797	0	96,485	21,620	6,040	8,073	59,544	28,766	12,306	11,691	5,202	1,744	0
Mar-03	16,349	128,636	38,713	828	57,691	5,744	12,180	16,438	55,122	31,854	14,559	22,901	11,614	21,390	7,504
Abr-03	15,159	109,104	205,370	824	64,595	15,233	12,697	8,989	34,204	25,694	15,293	9,419	7,565	6,180	6,141
May-03	12,547	61,589	200,733	20,011	83,334	9,088	7,803	6,916	17,837	23,797	15,655	15,695	5,231	0	2,749
Jun-03	7,805	49,107	182,227	307	47,047	0	29	7,922	24,474	12,650	2,928	5,699	5,301	12,222	3,888
Jul-03	4,983	53,632	58,291	1,365	85,144	15,145	5,332	9,776	88,134	33,358	10,433	4,354	8,887	6,559	9,571
Ago-03	22,130	66,504	111,649	2,023	48,047	13,648	14,831	18,210	33,700	19,469	14,112	0	12,564	14,565	5,792
Sep-03	18,100	33,009	112,265	6,883	91,972	20,404	15,659	13,355	46,087	4,290	3,253	12,160	11,912	2,187	7,698
Oct-03	8,256	24,053	100,775	1,109	73,484	16,424	5,053	2,733	7,456	12,206	606	4,273	0	14,535	1,715
Nov-03	1,826	14,693	58,208	20,576	87,711	17,563	0	420	14,608	0	534	5,043	420	6,763	0
Dic-03	1,459	7,843	36,125	160	88,094	19,333	173	2,803	14,450	271	535	4,191	2,659	482	2,153
Ene-04	6,628	69,720	84,581	0	64,735	10,717	4,570	5,276	2,700	7,782	4,328	4,933	4,320	4,197	9,060
Feb-04	11,779	116,689	71,604	0	115,531	25,888	7,232	9,667	71,300	30,854	14,737	13,999	6,230	2,088	0
Mar-04	19,525	153,317	46,233	988	68,895	6,859	14,546	19,632	65,830	38,043	17,388	27,350	13,870	25,783	8,962
Abr-04	18,057	129,708	244,626	982	76,940	18,144	15,124	10,707	40,743	30,608	18,217	11,220	9,011	7,361	7,315
May-04	14,907	73,040	238,501	23,773	99,010	10,798	9,271	8,217	21,193	28,276	18,602	18,648	6,216	0	3,266
Jun-04	9,250	58,098	215,983	364	55,760	0	35	9,390	29,008	14,994	3,471	6,755	6,283	14,486	4,608
Jul-04	5,892	63,303	68,925	1,613	100,673	17,907	6,305	11,559	104,213	39,446	12,337	5,149	10,509	7,755	11,317
Ago-04	26,107	78,319	131,711	2,387	56,679	16,100	17,497	21,483	39,756	22,968	16,648	0	14,822	17,183	6,833
Sep-04	21,304	38,788	132,140	8,101	108,252	24,015	18,431	15,720	54,247	5,050	3,829	14,313	14,021	2,574	9,061
Oct-04	9,696	28,203	118,358	1,303	86,303	19,288	5,935	3,209	8,758	14,337	711	5,019	0	17,070	2,014
Nov-04	2,140	17,193	68,218	24,113	102,792	20,583	0	493	17,120	0	626	5,911	493	7,926	0
Dic-04	1,707	9,159	42,250	187	103,027	22,610	203	3,279	16,900	317	625	4,901	3,110	563	2,518
Total	265,443	1,481,356	2,627,283	117,898	########	347,110	178,948	214,267	867,384	422,029	201,731	213,624	160,241	193,814	112,167

ESPOL 1958
POLITÉCNICA DEL LITORAL
BIBLIOTECA "GONZALO ZEVALLOS"

APENDICE 9
PUNTO DE REORDEN R e INVENTARIO DE SEGURIDAD Ss

t = 1.17 meses

PRODUCTO	DEMANDA 2003 ANUAL UNIDADES	PUNTO DE REORDEN R	DEMANDA 2004 ANUAL UNIDADES	PUNTO DE REORDEN R	INVENTARIO DE SEGURIDAD
1	5,827,626	568,194	7,676,558	748,464	2,368
2	8,108,881	790,616	10,622,894	1,035,732	1,859
3	855,966	83,457	1,106,416	107,876	228
4	876,098	85,420	1,145,056	111,643	458
5	214,623	20,926	254,665	24,830	239
6	653,277	63,694	845,520	82,438	228
7	84,542	8,243	159,914	15,592	40
8	100,167	9,766	119,665	11,667	119
9	71,224	6,944	99,933	9,743	87
10	316,546	30,863	378,580	36,912	560
11	52,642	5,133	98,475	9,601	65
12	173,288	16,896	206,210	20,105	162
13	147,905	14,421	178,262	17,381	80
14	989,672	96,493	1,176,246	114,684	959
15	134,335	13,098	210,306	20,505	60
16	120,684	11,767	146,431	14,277	70
17	681,468	66,443	831,723	81,093	266
18	1,140,262	111,176	1,446,994	141,082	387
19	33,350	3,252	60,248	5,874	9
20	701,713	68,417	1,008,583	98,337	300
21	126,232	12,308	186,612	18,195	72
22	83,431	8,134	99,120	9,664	50
23	96,806	9,439	118,084	11,513	63
24	368,807	35,959	466,805	45,513	351
25	195,564	19,068	232,628	22,681	137
26	92,748	9,043	111,336	10,855	67
27	90,299	8,804	116,621	11,371	39
28	71,876	7,008	88,361	8,615	45
29	83,078	8,100	105,743	10,310	45
30	52,603	5,129	64,590	6,298	30

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APENDICE 10

VARIABILIDAD DE LA DEMANDA

PRODUCTO	Costo Unitario	ΣD^2t	$(\Sigma Dt)^2$	Variabilidad V	Tipo de Demanda
1	0.0683	9.95E+12	1.95E+14	0.17	Regular
2	0.0579	1.82E+13	3.68E+14	0.14	Regular
3	0.32	2.48E+11	3.97E+12	0.44	Irregular
4	0.1667	2.02E+11	4.14E+12	0.12	Regular
5	0.6	4.22E+10	2.21E+11	3.39	Irregular
6	0.1691	1.41E+11	2.21E+12	0.47	Irregular
7	0.638	7.56E+09	9.89E+10	0.34	Irregular
8	0.797	6.30E+09	4.17E+10	2.48	Irregular
9	0.797	2.72E+09	3.44E+10	0.82	Irregular
10	0.08	5.82E+10	4.86E+11	1.75	Irregular
11	0.638	2.93E+09	3.72E+10	0.81	Irregular
12	0.295	7.99E+09	1.24E+11	0.49	Irregular
13	0.3348	5.75E+09	1.03E+11	0.28	Irregular
14	0.0427	4.19E+11	4.59E+12	1.10	Irregular
15	0.2224	8.80E+09	1.60E+11	0.26	Irregular
16	0.3348	4.20E+09	7.05E+10	0.37	Irregular
17	0.0587	1.34E+11	2.19E+12	0.40	Irregular
18	0.0304	4.02E+11	6.90E+12	0.34	Irregular
19	0.638	2.10E+09	1.39E+10	2.48	Irregular
20	0.0379	1.60E+11	3.47E+12	0.08	Regular
21	0.18	6.34E+09	1.20E+11	0.21	Regular
22	0.3348	2.25E+09	3.20E+10	0.61	Irregular
23	0.2794	2.79E+09	4.59E+10	0.40	Irregular
24	0.0651	4.86E+10	7.52E+11	0.49	Irregular
25	0.1297	1.15E+10	1.78E+11	0.48	Irregular
26	0.2658	2.84E+09	4.07E+10	0.61	Irregular
27	0.2452	3.06E+09	4.56E+10	0.54	Irregular
28	0.2794	1.61E+09	2.57E+10	0.44	Irregular
29	0.2109	2.84E+09	3.76E+10	0.74	Irregular
30	0.2915	8.24E+08	1.26E+10	0.51	Irregular

APENDICE11

CALCULOS DE EOQ PARA ARTÍCULOS CON DEMANDA REGULAR

PRODUCTO	DEMANDA ANUAL UNIDADES 2003	COSTO UNITARIO c	2AD	*h = ic*	*EOQ*
1	5,827,626	0.0683	617,728,408	0.0109	237,754
2	8,108,881	0.0579	859,541,339	0.0093	304,603
4	876,098	0.1667	92,866,391	0.0267	59,007
20	701,713	0.0379	74,381,580	0.0061	110,752
21	126,232	0.1800	13,380,591	0.0288	21,555
PRODUCTO	DEMANDA ANUAL UNIDADES 2004	COSTO UNITARIO c	2AD	*h = ic*	*EOQ*
1	7,676,558	0.0683	813,715,115	0.0109	272,876
2	10,622,894	0.0579	1,126,026,750	0.0093	348,638
4	1,145,056	0.1667	121,375,969	0.0267	67,459
20	1,008,583	0.0379	106,909,845	0.0061	132,779
21	186,612	0.1800	19,780,885	0.0288	26,208

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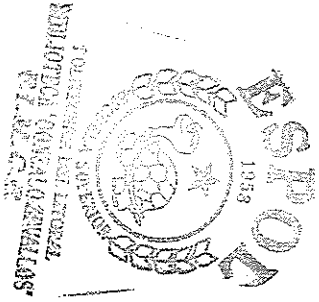

ESPOL
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BIBLIOTECA GENERAL
"GONZALO ZEVALLOS"

APENDICE 12

CALCULOS CANTIDAD A ORDENAR PARA ARTICULOS CON DEMANDA IRREGULAR MODELO SILVER-MEAL

	#3	#5	#6	#7	#8	#9	#10
Feb-03	137,097	22,100	45,849	1,557	17,392	2,093	14,889
Mar-03	173,993	3,628	18,878	19,865	44,225	6,105	2,861
Abr-03	94,183	2,800	62,369	3,295	11,076	5,518	2,058
May-03	143,732	2,702	162,664	10,414	6,354	8,128	2,443
Jun-03	1,134	57,266	60,982	4,661	0	1,693	611
Jul-03	74,113	6,499	46,202	7,450	5,377	0	608
Ago-03	10,985	118,932	25,839	4,468	0	23,694	6,318
Sep-03	87,302	0	39,711	14,169	0	17,203	11,132
Oct-03	57,452	1,352	98,105	18,663	0	2,907	11,101
Nov-03	52,717	0	53,238	40,442	0	7,970	22,846
Dic-03	37,259	0	16,632	19,395	0	7,658	13,253
Ene-04	91,040	0	111,283		18,906	4,664	745
Feb-04	163,841	26,462	54,901	1,864	20,829	2,506	17,827
Mar-04	207,392	4,333	22,545	23,720	52,825	7,290	3,417
Abr-04	111,977	3,335	74,292	3,925	13,195	6,572	2,451
May-04	170,466	3,210	193,271	12,372	7,550	9,656	2,903
Jun-04	1,341	67,872	72,279	5,524	0	2,007	724
Jul-04	87,484	7,684	54,632	8,808	6,359	0	719
Ago-04	12,937	140,296	30,483	5,270	0	27,950	7,453
Sep-04	102,593	0	46,742	16,676	0	20,248	13,101
Oct-04	67,370	1,585	115,222	21,917	0	3,414	13,037
Nov-04	61,688	0	62,394	47,392	0	9,340	26,772
	#11	#12	#13	#14	#15	#16	#17
Feb-03	25,519	12,916	99,727	2,448	9,837	9,837	97,648
Mar-03	26,177	19,804	132,102	13,662	16,349	16,349	128,636
Abr-03	11,318	19,653	56,780	6,145	15,159	15,159	109,104
May-03	13,611	11,084	33,723	19,509	12,547	12,547	61,589
Jun-03	9,557	12,355	38,581	8,081	7,805	7,805	49,107
Jul-03	14,612	11,625	182,264	19,106	4,983	4,983	53,632
Ago-03	26,704	23,959	315,962	13,573	22,130	22,130	66,504
Sep-03	12,147	17,190	86,400	25,557	18,100	18,100	33,009
Oct-03	5,889	11,756	19,206	21,801	8,256	8,256	24,053
Nov-03	0	0	0	24,323	1,826	1,826	14,693
Dic-03	0	12,034	0	27,038	1,459	1,459	7,843
Ene-04	33,415	0	33,673	5,343	6,628	6,628	69,720
Feb-04	30,560	15,467	119,417	2,931	11,779	11,779	116,689
Mar-04	31,264	23,651	157,762	16,314	19,525	19,525	153,317
Abr-04	13,482	23,411	67,633	7,319	18,057	18,057	129,708
May-04	16,173	13,169	40,068	23,178	14,907	14,907	73,040
Jun-04	11,329	14,644	45,728	9,577	9,250	9,250	58,098
Jul-04	17,279	13,746	215,514	22,589	5,892	5,892	63,303
Ago-04	31,504	28,264	372,740	16,011	26,107	26,107	78,319
Sep-04	14,299	20,234	101,697	30,080	21,304	21,304	38,788
Oct-04	6,917	12,701	22,549	25,603	9,696	9,696	28,203
Nov-04		1,104		28,503	2,140	2,140	17,193

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	#18	#19	#22	#23	#24	#25	#26
Feb-03	59,797	0	6,040	8,073	59,544	25,766	12,306
Mar-03	38,713	828	12,180	16,438	55,122	31,854	14,559
Abr-03	205,370	824	12,697	8,989	34,204	25,694	15,293
May-03	200,733	20,317	7,803	6,916	17,837	23,797	15,655
Jun-03	182,227	0	0	7,922	24,474	12,650	2,928
Jul-03	58,291	1,365	5,332	9,776	88,134	33,358	10,433
Ago-03	111,649	2,023	14,831	18,210	33,700	19,469	14,112
Sep-03	112,265	6,883	15,659	13,355	46,087	4,290	3,858
Oct-03	100,775	1,109	5,227	3,153	7,456	12,477	0
Nov-03	58,208	20,736	0	0	14,608	0	1,069
Dic-03	36,125	0	0	2,803	14,450	0	0
Ene-04	84,581	0	4,570	5,276	2,700	7,782	4,328
Feb-04	71,604	0	7,232	9,667	71,300	30,854	14,737
Mar-04	46,233	988	14,546	19,632	65,830	38,043	17,388
Abr-04	244,626	982	15,124	10,707	40,743	30,608	18,217
May-04	238,501	23,773	9,306	8,217	21,193	28,276	18,602
Jun-04	215,983	364	0	9,390	29,008	14,994	3,471
Jul-04	68,925	1,613	6,305	11,559	104,213	39,446	12,337
Ago-04	131,711	2,387	17,497	21,483	39,756	22,968	16,648
Sep-04	132,140	8,101	18,431	15,720	54,247	5,050	4,540
Oct-04	118,358	1,303	6,138	3,702	8,758	14,654	0
Nov-04	68,218	24,300	0	0	17,120	0	1,251

	#27	#28	#29	#30			
Feb-03	11,691	5,202	1,744	0			
Mar-03	22,901	11,614	21,590	7,504			
Abr-03	9,419	7,565	6,180	6,141			
May-03	15,695	5,231	0	2,749			
Jun-03	5,699	5,301	12,222	3,888			
Jul-03	4,354	8,887	6,559	9,571			
Ago-03	0	12,564	14,565	5,792			
Sep-03	12,160	12,332	2,187	7,698			
Oct-03	4,273	0	14,535	1,715			
Nov-03	5,043	0	7,244	0			
Dic-03	4,191	2,659	0	2,153			
Ene-04	4,933	4,320	4,197	9,060			
Feb-04	13,999	6,230	2,088	0			
Mar-04	27,350	13,870	25,783	8,962			
Abr-04	11,220	9,011	7,361	7,315			
May-04	18,648	6,216	0	3,266			
Jun-04	6,755	6,283	14,486	4,608			
Jul-04	5,149	10,509	7,755	11,317			
Ago-04	0	14,822	17,183	6,833			
Sep-04	14,313	14,513	2,574	9,061			
Oct-04	5,019	0	17,070	2,014			
Nov-04	5,911	0	8,489	0			

ESPOL 1958 POLITECNICO DEL LITORAL BIBLIOTECA "GONZALO ZEVALLOS" G.Y.E.

APENDICE 13

CALCULOS CANTIDAD A ORDENAR PARA ARTICULOS CON DEMANDA IRREGULAR

MODELO COSTO UNITARIO MINIMO

	#3	#5	#6	#7	#8	#9	#10
Feb-03	137,097	22,100	45,849	1,557	17,392	2,093	127,854
Mar-03	173,993	3,628	18,878	19,865	44,225	6,105	9,038
Abr-03	94,183	2,800	62,369	3,295	11,076	5,518	22,497
May-03	143,732	2,702	162,664	10,414	6,060	8,128	20,702
Jun-03	75,247	57,266	60,982	4,661	5,672	1,693	11,094
Jul-03	85,098	6,499	46,202	7,450	0	0	37,750
Ago-03	10,985	117,376	25,839	4,468	0	23,694	70,148
Sep-03	87,302	2,253	39,711	14,169	0	17,203	13,711
Oct-03	57,452	0	98,105	18,663	0	2,907	5,324
Nov-03	52,717	27,118	53,238	40,442	0	7,970	0
Dic-03	37,259	0	16,632	19,395	0	7,658	153,807
Ene-04	91,040	0	111,283	0	18,906	4,664	0
Feb-04	163,841	0	54,901	1,864	20,829	2,506	0
Mar-04	207,392	4,333	22,545	23,720	52,825	7,290	10,795
Abr-04	111,977	3,335	74,292	3,925	13,195	6,572	26,799
May-04	170,466	3,210	193,271	12,372	7,201	9,656	24,599
Jun-04	1,341	67,872	72,279	5,524	349	2,007	13,150
Jul-04	87,484	7,684	54,632	8,808	6,359	0	44,639
Ago-04	12,937	138,464	30,483	5,270	0	27,950	82,758
Sep-04	102,593	1,832	46,742	16,676	0	20,248	16,139
Oct-04	67,370	1,347	115,222	21,917	0	3,414	6,248
Nov-04	61,688	0	62,394	47,392	0	9,340	0
	#11	#12	#13	#14	#15	#16	#17
Feb-03	14,889	25,519	12,916	99,727	2,448	9,837	Q
Mar-03	2,861	26,177	19,804	132,102	13,662	16,349	97,648
Abr-03	2,058	11,318	19,653	56,780	6,145	15,159	128,636
May-03	2,443	13,611	11,084	33,723	19,509	12,547	109,104
Jun-03	611	9,557	12,355	38,581	8,081	7,805	61,589
Jul-03	608	14,612	11,625	182,264	19,106	4,983	49,107
Ago-03	6,318	26,704	23,959	315,962	13,573	22,130	53,632
Sep-03	11,132	12,147	17,190	86,400	25,557	18,100	66,504
Oct-03	11,101	5,889	10,814	16,090	21,801	8,256	33,009
Nov-03	22,846	0	2,763	36,788	24,323	1,826	24,053
Dic-03	13,253	0	0	0	27,038	1,459	14,693
Ene-04	745	33,415	10,213	0	5,343	6,628	7,843
Feb-04	17,827	30,560	15,467	119,417	2,931	11,779	69,720
Mar-04	3,417	31,264	23,651	157,762	16,314	19,525	116,689
Abr-04	2,451	13,482	23,411	67,633	7,319	18,057	153,317
May-04	2,903	16,173	13,169	40,068	23,178	14,907	129,708
Jun-04	724	11,329	14,644	45,728	9,577	9,250	73,040
Jul-04	719	17,279	13,746	215,514	22,589	5,892	58,098
Ago-04	7,453	31,504	28,264	372,740	16,011	26,107	63,303

Sep-04	13,101	14,299	20,234	101,697	30,080	21,304	78,319
Oct-04	13,037	6,832	12,701	18,898	25,603	9,696	38,788
Nov-04	26,772	85	1,104	3,652	28,503	2,140	28,203
	#18	#19	#22	#23	#24	#25	#26
Feb-03	59,797	0	6,040	8,073	59,544	Q	Q
Mar-03	38,713	828	12,180	16,438	55,122	25,766	12,306
Abr-03	205,370	824	12,697	8,989	34,204	31,854	14,559
May-03	200,733	20,011	7,803	6,916	17,837	25,694	15,293
Jun-03	182,227	3,695	20,193	7,922	24,474	23,797	15,655
Jul-03	58,291	0	0	9,776	88,134	12,650	2,928
Ago-03	111,649	0	0	18,210	33,700	33,358	10,433
Sep-03	112,265	6,883	20,712	13,355	46,087	19,469	14,112
Oct-03	100,775	1,109	0	2,733	7,456	4,290	3,253
Nov-03	58,208	20,576	0	3,224	14,608	12,477	1,674
Dic-03	36,125	1,149	4,744	0	14,450	0	0
Ene-04	84,581	0	0	5,276	2,700	0	0
Feb-04	71,604	0	7,232	9,667	71,300	7,782	4,328
Mar-04	46,233	0	14,546	19,632	65,830	30,854	14,737
Abr-04	244,626	982	15,124	10,707	40,743	38,043	17,388
May-04	238,501	23,773	9,271	8,217	21,193	30,608	18,217
Jun-04	215,983	364	6,340	9,390	29,008	28,276	18,602
Jul-04	68,925	1,613	0	11,559	104,213	14,994	3,471
Ago-04	131,711	2,387	17,497	21,483	39,756	39,446	12,337
Sep-04	132,140	8,101	18,431	15,720	54,247	22,968	16,648
Oct-04	118,358	1,303	6,138	3,209	8,758	5,050	3,829
Nov-04	68,218	24,113	0	3,771	17,120	14,654	1,962
	#27	#28	#29	#30			
Feb-03	11,691	5,202	1,744	0			
Mar-03	22,901	11,614	21,590	7,504			
Abr-03	9,419	7,565	6,180	6,141			
May-03	15,695	5,231	0	2,749			
Jun-03	5,699	5,301	12,222	3,888			
Jul-03	4,354	8,887	6,559	9,571			
Ago-03	0	12,564	14,565	5,792			
Sep-03	12,160	11,912	2,187	7,698			
Oct-03	4,273	0	14,535	1,715			
Nov-03	5,043	3,079	6,763	0			
Dic-03	4,191	0	4,678	2,153			
Ene-04	4,933	4,320	4,197	9,060			
Feb-04	13,999	6,230	2,088	0			
Mar-04	27,350	13,870	25,783	8,962			
Abr-04	11,220	9,011	7,361	7,315			
May-04	18,648	6,216	0	3,266			
Jun-04	6,755	6,283	14,486	4,608			
Jul-04	5,149	10,509	7,755	11,317			
Ago-04	0	14,822	17,183	6,833			
Sep-04	14,313	14,021	2,574	9,061			
Oct-04	5,019	0	17,070	2,014			
Nov-04	5,911	3,602	7,926	0			

ESPOL 1959
POLITECNICA DEL LITORAL
BIBLIOTECA "GONZALO ZEVALLOS"
GUAYAQUIL - ECUADOR

APENDICE 14

CALCULOS CANTIDAD A ORDENAR PARA

ARTICULOS CON DEMANDA IRREGULAR

MODELO BALANCEO PERIODO FRAGMENTADO

	#3	#5	#6	#7	#8	#9	#10
Feb-03	137,097	22,100	45,849	1,557	17,392	2,093	127,854
Mar-03	173,993	3,628	18,878	19,865	44,225	6,105	9,038
Abr-03	94,183	2,800	62,369	3,295	11,076	5,518	22,497
May-03	143,732	2,702	162,664	10,414	6,354	8,128	20,702
Jun-03	1,134	57,266	60,982	4,661	0	1,693	11,094
Jul-03	74,113	6,499	46,202	7,450	5,377	0	37,750
Ago-03	10,985	118,932	25,839	4,468	0	23,694	70,148
Sep-03	87,302	0	39,711	14,169	0	17,203	16,981
Oct-03	57,452	1,352	98,105	18,663	0	2,907	0
Nov-03	52,717	0	53,238	40,442	0	7,970	2,752
Dic-03	37,259	0	16,632	19,395	0	7,658	0
Ene-04	91,040	0	111,283	0	18,906	4,664	0
Feb-04	163,841	26,462	54,901	1,864	20,829	2,506	153,108
Mar-04	207,392	4,333	22,545	23,720	52,825	7,290	10,795
Abr-04	111,977	3,335	74,292	3,925	13,195	6,572	26,799
May-04	170,466	3,210	193,271	12,372	7,550	9,656	24,599
Jun-04	1,341	67,872	72,279	5,524	0	2,007	13,150
Jul-04	87,484	7,684	54,632	8,808	6,359	0	44,639
Ago-04	12,937	140,296	30,483	5,270	0	27,950	82,758
Sep-04	102,593	0	46,742	16,676	0	20,248	19,981
Oct-04	67,370	1,585	115,222	21,917	0	3,414	0
Nov-04	61,688	0	62,394	47,392	0	9,340	2,547
	#11	#12	#13	#14	#15	#16	#17
Feb-03	14,889	25,519	12,916	99,727	2,448	9,837	97,648
Mar-03	2,861	26,177	19,804	132,102	13,662	16,349	128,636
Abr-03	2,058	11,318	19,653	56,780	6,145	15,159	109,104
May-03	2,443	13,611	11,084	33,723	19,509	12,547	61,589
Jun-03	611	9,557	12,355	38,581	8,081	7,805	49,107
Jul-03	608	14,612	11,625	182,264	19,106	4,983	53,632
Ago-03	6,318	26,704	23,959	315,962	13,573	22,130	66,504
Sep-03	11,132	12,147	17,190	86,400	25,557	18,100	33,009
Oct-03	11,101	5,889	11,756	19,206	21,801	8,256	24,053
Nov-03	22,846	0	0	0	24,323	1,826	14,693
Dic-03	13,253	0	1,821	0	27,038	1,459	7,843
Ene-04	745	33,415	10,213	33,673	5,343	6,628	69,720
Feb-04	17,827	30,560	15,467	119,417	2,931	11,779	116,689
Mar-04	3,417	31,264	23,651	157,762	16,314	19,525	153,317
Abr-04	2,451	13,482	23,411	67,633	7,319	18,057	129,708
May-04	2,903	16,173	13,169	40,068	23,178	14,907	73,040
Jun-04	724	11,329	14,644	45,728	9,577	9,250	58,098
Jul-04	719	17,279	13,746	215,514	22,589	5,892	63,303
Ago-04	7,453	31,504	28,264	372,740	16,011	26,107	78,319
Sep-04	13,101	14,299	20,234	101,697	30,080	21,304	38,788
Oct-04	13,037	6,917	12,701	22,549	25,603	9,696	28,203
Nov-04	26,772	0	1,104	0	28,503	2,140	17,193

ESPOL 1958

	#18	#19	#22	#23	#24	#25	#26
Feb-03	59,797	0	6,040	8,073	59,544	25,766	12,306
Mar-03	38,713	828	12,180	16,438	55,122	31,854	14,559
Abr-03	205,370	824	12,697	8,989	34,204	25,694	15,293
May-03	200,733	20,317	7,832	6,916	17,837	23,797	15,655
Jun-03	182,227	0	0	7,922	24,474	12,650	2,928
Jul-03	58,291	1,365	5,332	9,776	88,134	33,358	10,433
Ago-03	111,649	2,023	14,831	18,210	33,700	19,469	14,112
Sep-03	112,265	6,883	15,659	13,355	46,087	4,290	3,858
Oct-03	100,775	1,109	5,227	3,153	7,456	12,477	0
Nov-03	58,208	20,736	0	0	14,608	0	1,069
Dic-03	36,125	0	0	2,803	17,150	0	0
Ene-04	84,581	0	4,570	5,276	0	7,782	4,328
Feb-04	71,604	0	7,232	9,667	71,300	30,854	14,737
Mar-04	46,233	988	14,546	19,632	65,830	38,043	17,388
Abr-04	244,626	982	15,124	10,707	40,743	30,608	18,217
May-04	238,501	24,137	9,271	8,217	21,193	28,276	18,602
Jun-04	215,983	0	35	9,390	29,008	14,994	3,471
Jul-04	68,925	1,613	6,305	11,559	104,213	39,446	12,337
Ago-04	131,711	2,387	17,497	21,483	39,756	22,968	16,648
Sep-04	132,140	8,101	18,431	15,720	54,247	5,050	4,540
Oct-04	118,358	1,303	6,138	3,702	8,758	14,654	0
Nov-04	68,218	24,300	0	0	17,120	0	1,251

	#27	#28	#29	#30			
Feb-03	11,691	5,202	1,744	0			
Mar-03	22,901	11,614	21,590	7,504			
Abr-03	9,419	7,565	6,180	6,141			
May-03	15,695	5,231	0	2,749			
Jun-03	5,699	5,301	12,222	3,888			
Jul-03	4,354	8,887	6,559	9,571			
Ago-03	0	12,564	14,565	5,792			
Sep-03	12,160	12,332	2,187	7,698			
Oct-03	4,273	0	14,535	1,715			
Nov-03	5,043	0	7,244	0			
Dic-03	4,191	2,659	0	2,153			
Ene-04	4,933	4,320	4,197	9,060			
Feb-04	13,999	6,230	2,088	0			
Mar-04	27,350	13,870	25,783	8,962			
Abr-04	11,220	9,011	7,361	7,315			
May-04	18,648	6,216	0	3,266			
Jun-04	6,755	6,283	14,486	4,608			
Jul-04	5,149	10,509	7,755	11,317			
Ago-04	0	14,822	17,183	6,833			
Sep-04	14,313	14,513	2,574	9,061			
Oct-04	5,019	0	17,070	2,014			
Nov-04	5,911	0	8,489	0			

APENDICE 15

CANTIDADES A ORDENAR PRODUCTOS IMPORTADOS

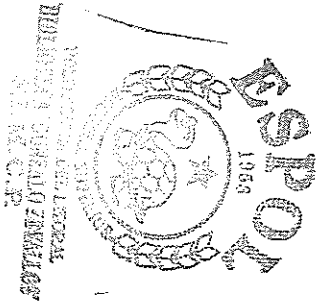
MES	#3	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16
Feb-03	137,097	22,100	45,849	1,557	17,392	2,093	127,854	14,889	25,519	12,916	12,916	2,448	9,837
Mar-03	173,993	3,628	18,878	19,865	44,225	6,105	9,038	2,861	26,177	19,804	19,804	13,662	16,349
Abr-03	94,183	2,800	62,369	3,295	11,076	5,518	22,497	2,058	11,318	19,653	19,653	6,145	15,159
May-03	143,732	2,702	162,664	10,414	6,354	8,128	20,702	2,443	13,611	11,084	11,084	19,509	12,547
Jun-03	1,134	57,266	60,982	4,661	0	1,693	11,094	611	9,557	12,355	12,355	8,081	7,805
Jul-03	74,113	6,499	46,202	7,450	5,377	0	37,750	608	14,612	11,625	11,625	19,106	4,983
Ago-03	10,985	118,932	25,839	4,468	0	23,694	70,148	6,318	26,704	23,959	23,959	13,573	22,130
Sep-03	87,302	0	39,711	14,169	0	17,203	16,981	11,132	12,147	17,190	17,190	25,557	18,100
Oct-03	57,452	1,352	98,105	18,663	0	2,907	0	11,101	5,889	11,756	11,756	21,801	8,256
Nov-03	52,717	0	53,238	40,442	0	7,970	2,752	22,846	0	0	0	24,323	1,826
Dic-03	37,259	0	16,632	19,395	0	7,658	0	13,253	0	12,034	12,034	27,038	1,459
Ene-04	91,040	0	111,283	0	18,906	4,664	0	745	33,415	0	0	5,343	6,628
Feb-04	163,841	26,462	54,901	1,864	20,829	2,506	153,108	17,827	30,560	15,467	15,467	2,931	11,779
Mar-04	207,392	4,333	22,545	23,720	52,825	7,290	10,795	3,417	31,264	23,651	23,651	16,314	19,525
Abr-04	111,977	3,335	74,292	3,925	13,195	6,572	26,799	2,451	13,482	23,411	23,411	7,319	18,057
May-04	170,466	3,210	193,271	12,372	7,550	9,656	24,599	2,903	16,173	13,169	13,169	23,178	14,907
Jun-04	1,341	67,872	72,279	5,524	0	2,007	13,150	724	11,329	14,644	14,644	9,577	9,250
Jul-04	87,484	7,684	54,632	8,808	6,359	0	44,639	719	17,279	13,746	13,746	22,589	5,892
Ago-04	12,937	140,296	30,483	5,270	0	27,950	82,758	7,453	31,504	28,264	28,264	16,011	26,107
Sep-04	102,593	0	46,742	16,676	0	20,248	19,981	13,101	14,299	20,234	20,234	30,080	21,304
Oct-04	67,370	1,585	115,222	21,917	0	3,414	0	13,037	6,917	12,701	12,701	25,603	9,696
Nov-04	61,688	0	62,394	47,392	0	9,340	2,547	26,772	0	1,104	1,104	28,503	2,440

MES	#17	#18	#19	#22	#23	#24	#25	#26	#27	#28	#29	#30
Feb-03	97,648	59,797	0	6,040	8,073	59,544	25,766	12,306	12,306	5,202	1,744	0
Mar-03	128,636	38,713	828	12,180	16,438	55,122	31,854	14,559	14,559	11,614	21,590	7,504
Abr-03	109,104	205,370	824	12,697	8,989	34,204	25,694	15,293	15,293	7,565	6,180	6,141
May-03	61,589	200,733	20,011	7,803	6,916	17,837	23,797	15,655	15,655	5,231	0	2,749
Jun-03	49,107	182,227	3,695	20,193	7,922	24,474	12,650	2,928	2,928	5,301	12,222	3,888
Jul-03	53,632	58,291	0	0	9,776	88,134	33,358	10,433	10,433	8,887	6,559	9,571
Ago-03	66,504	111,649	0	0	18,210	33,700	19,469	14,112	14,112	12,564	14,565	5,792
Sep-03	33,009	112,265	6,883	20,712	13,355	46,087	4,290	3,858	3,858	12,332	2,187	7,698
Oct-03	24,053	100,775	1,109	0	3,153	7,456	12,477	0	0	0	14,535	1,715
Nov-03	14,693	58,208	20,576	0	0	14,608	0	1,069	1,069	0	7,244	0
Dic-03	7,843	36,125	1,149	4,744	2,803	17,150	0	0	0	2,659	0	2,153
Ene-04	69,720	84,581	0	0	5,276	0	7,782	4,328	4,328	4,320	4,197	9,060
Feb-04	116,689	71,604	0	7,232	9,667	71,300	30,854	14,737	14,737	6,230	2,088	0
Mar-04	153,317	46,233	0	14,546	19,632	65,830	38,043	17,388	17,388	13,870	25,783	8,962
Abr-04	129,708	244,626	982	15,124	10,707	40,743	30,608	18,217	18,217	9,011	7,361	7,315
May-04	73,040	238,501	23,773	9,271	8,217	21,193	28,276	18,602	18,602	6,216	0	3,266
Jun-04	58,098	215,983	364	6,340	9,390	29,008	14,994	3,471	3,471	6,283	14,486	4,608
Jul-04	63,303	68,925	1,613	0	11,559	104,213	39,446	12,337	12,337	10,509	7,755	11,317
Ago-04	78,319	131,711	2,387	17,497	21,483	39,756	22,968	16,648	16,648	14,822	17,183	6,833
Sep-04	38,788	132,140	8,101	18,431	15,720	54,247	5,050	4,540	4,540	14,513	2,574	9,061
Oct-04	28,203	118,358	1,303	6,138	3,702	8,758	14,654	0	0	0	17,070	2,014
Nov-04	17,193	68,218	24,113	0	0	17,120	0	1,251	1,251	0	8,489	0

APENDICE 16
VENTAS EN UNIDADES 2001 y 2002

PRODUCTO	AZUL 1	NEGRO1	ROJO1	VERDE1	AZUL EXP 1	VERDE EXP 1	NEGRO EXP 1
Enero-01	414,898	403,869	148,762	6,326	307,757	40,061	372,902
Febrero-01	341,575	40,103	31,256	29,093	318,240	11,059	246,720
Marzo-01	365,294	679,081	365,455	3,329	615,360	18,336	439,680
Abril-01	598,541	497,694	321,341	1,858	359,424	76,090	81
Mayo-01	807,317	739,644	559,203	0	227,712	13,133	168,077
Junio-01	686,653	406,758	459,419	2,171	426,899	69,811	960,614
Julio-01	495,107	322,518	244,518	38,472	0	0	0
Agosto-01	840,169	508,130	488,890	53,798	133,584	4,682	35,585
Septiembre-01	523,011	376,464	292,158	19,061	92,794	55,642	243,264
Octubre-01	265,719	192,241	105,921	12,786	1,318,752	83,552	1,898,528
Noviembre-01	202,759	203,032	135,016	5,509	1,643,760	16,320	1,395,341
Diciembre-01	213,295	141,126	77,399	2,127	678,720	55,846	750,307

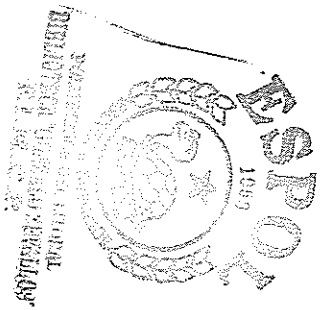
PRODUCTO	ROJO EXP 1	AZUL 2	NEGRO 2	ROJO 2	AZUL EXP 2	NEGRO EXP2	ROJO EXP2
Enero-01	160,243	383,280	292,140	294,720	0	0	0
Febrero-01	135,859	344,919	206,119	196,659	0	0	0
Marzo-01	8,640	811,146	413,860	467,700	9,331	111,840	5,875
Abril-01	0	657,640	484,340	470,640	0	0	0
Mayo-01	0	708,860	247,540	287,463	160,780	21,120	0
Junio-01	0	247,440	102,560	297,600	29,722	69,466	0
Julio-01	79,834	788,580	455,280	468,600	63,840	95,040	8,640
Agosto-01	251,154	779,518	575,983	577,613	13,133	6,566	0
Septiembre-01	230,170	563,785	411,433	399,398	57,370	88,128	27,994
Octubre-01	621,694	252,538	282,355	128,640	318,067	342,989	21,082
Noviembre-01	258,720	330,560	300,480	304,320	42,912	16,589	9,734
Diciembre-01	79,398	267,206	128,966	147,994	67,795	126,701	79,411



VENTAS EN UNIDADES 2002

PRODUCTO	AZUL 1	NEGRO1	ROJO1	VERDE1	AZUL EXP 1	VERDE EXP 1	NEGRO EXP 1	ROJO EXP 1
Enero-02	518,622	504,836	185,952	7,908	384,696	50,076	466,128	200,304
Febrero-02	426,969	50,129	39,070	36,366	397,800	13,824	308,400	169,824
Marzo-02	456,617	848,851	456,819	4,161	769,200	22,920	549,600	10,800
Abril-02	748,176	622,117	401,676	2,322	449,280	95,112	102	0
Mayo-02	1,009,146	924,555	699,004	0	284,640	16,416	210,096	0
Junio-02	858,316	508,448	574,274	2,714	533,624	87,264	1,200,768	0
Julio-02	618,884	403,148	305,648	48,090	0	0	0	99,792
Agosto-02	1,050,211	635,163	611,113	67,247	166,980	5,852	44,481	313,943
Septiembre-02	653,764	470,580	365,198	23,826	115,992	69,552	304,080	287,712
Octubre-02	332,149	240,301	132,401	15,983	1,648,440	104,440	2,373,160	777,118
Noviembre-02	253,449	253,790	168,770	6,886	2,054,700	20,400	1,744,176	323,400
Diciembre-02	266,619	176,407	96,749	2,659	848,400	69,808	937,884	99,248
Enero-03	622,346	605,803	223,142	9,490	461,635	60,091	559,354	240,365
TOTAL	7,815,268	6,244,128	4,259,816	227,651	8,115,387	615,755	8,698,228	2,522,506

PRODUCTO	AZUL 2	NEGRO 2	ROJO 2	AZUL EXP 2	NEGRO EXP2	ROJO EXP2
Enero-02	479,100	365,175	368,400	0	0	0
Febrero-02	431,149	257,649	245,824	0	0	0
Marzo-02	1,013,932	517,325	584,625	11,664	139,800	7,344
Abril-02	822,050	605,425	588,300	0	0	0
Mayo-02	886,075	309,425	359,329	200,975	26,400	0
Junio-02	309,300	128,200	372,000	37,152	86,832	0
Julio-02	985,725	569,100	585,750	79,800	118,800	10,800
Agosto-02	974,398	719,979	722,016	16,416	8,208	0
Septiembre-02	704,731	514,291	499,247	71,712	110,160	34,992
Octubre-02	315,672	352,944	160,800	397,584	428,736	26,352
Noviembre-02	413,200	375,600	380,400	53,640	20,736	12,168
Diciembre-02	334,008	161,208	184,992	84,744	158,376	99,264
Enero-03	574,920	438,210	442,080	0	0	0
TOTAL	8,244,260	5,314,531	5,493,763	953,687	1,098,048	190,920



APENDICE 17
PRONOSTICOS DE PRODUCTOS FINALES DE DEMANDA DEPENDIENTE

CALCULOS PRONOSTICOS CON METODO PROMEDIO MOVIL

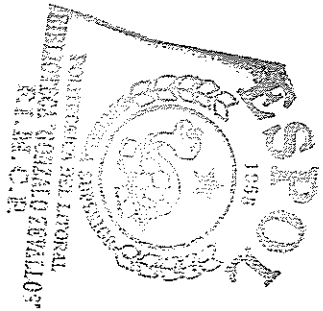
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Abr-02	467,403	467,939	227,280	16,145	517,232	28,940	441,376	126,976	641,394	380,050	399,616	3,686	46,600	2,448
May-02	543,921	507,032	299,188	14,283	639,760	43,952	286,034	60,206	756,716	460,133	472,916	3,886	46,600	2,448
Jun-02	737,980	799,503	519,165	2,161	801,040	44,816	253,366	3,600	907,362	477,392	510,751	70,880	55,400	2,448
Jul-02	871,879	885,040	656,318	1,679	422,515	66,264	470,322	0	672,475	347,663	439,876	79,376	37,744	0
Ago-02	828,782	612,050	526,309	18,935	272,765	34,560	470,288	33,264	727,033	335,575	439,026	105,976	77,344	3,600
Sep-02	842,470	515,586	497,012	39,350	233,535	31,039	416,083	137,912	756,474	472,426	559,922	44,456	71,280	3,600
Oct-02	774,286	502,964	427,320	46,388	94,324	25,135	116,187	233,816	988,286	601,123	602,338	55,976	78,056	16,264
Nov-02	678,708	448,681	369,571	35,695	643,804	69,948	907,240	469,591	664,934	529,071	460,688	161,904	182,368	20,448
Dic-02	413,121	321,557	222,133	16,569	1,273,044	64,787	1,473,809	462,743	477,868	414,278	346,816	174,312	186,644	24,504

CALCULOS PRONOSTICOS CON METODO SUAVIZACION EXPONENCIAL $\alpha = 0.1$

MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	518,622	504,836	165,862	7,908	384,696	50,076	466,128	200,304	479,100	365,175	368,400	0	0	0
Mar-02	509,457	459,365	171,264	10,754	386,008	46,451	460,355	197,256	474,305	354,422	366,142	0	0	0
Abr-02	504,173	498,314	199,819	10,095	424,326	44,098	460,280	178,610	528,268	370,713	378,991	1,166	13,980	734
May-02	528,573	510,694	220,005	9,317	426,821	49,199	414,262	160,749	557,646	394,184	399,922	1,050	12,582	661
Jun-02	576,630	552,050	267,905	8,386	412,603	45,921	393,845	144,674	590,469	395,708	395,862	21,042	13,964	595
Jul-02	604,799	547,717	295,642	7,818	424,705	50,055	474,538	130,207	562,370	359,957	393,476	22,853	21,261	535
Ago-02	606,207	533,260	299,252	11,846	382,235	45,050	427,084	127,165	604,705	380,871	412,703	28,368	31,006	1,552
Sep-02	650,608	543,450	330,438	17,366	360,709	41,130	386,824	145,843	641,675	414,782	449,625	27,173	28,726	1,406
Oct-02	650,923	536,163	333,914	18,030	336,237	43,972	380,349	160,030	647,980	424,733	449,196	31,627	35,880	4,764
Nov-02	619,046	506,577	313,763	17,825	467,456	50,019	579,630	221,739	614,749	417,554	420,356	63,222	76,056	6,953
Dic-02	582,486	481,298	299,264	16,731	626,182	47,057	696,085	231,905	594,595	413,369	416,361	68,764	70,524	7,446

CALCULOS PRONOSTICOS CON METODO SUAVIZACION EXPONENCIAL $\alpha = 0.4$

MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	518,622	504,836	165,862	7,908	384,696	50,076	466,128	200,304	479,100	365,175	368,400	0	0	0
Mar-02	481,061	322,953	127,109	19,291	389,938	35,575	403,037	188,112	469,920	322,165	358,142	0	0	0
Abr-02	471,823	533,312	269,047	13,239	541,643	30,613	461,662	117,187	581,525	400,229	378,991	4,666	55,920	2,936
May-02	582,364	568,834	316,099	8,872	504,696	66,353	277,038	70,312	737,735	462,307	399,922	3,799	33,552	1,761
Jun-02	753,077	711,123	469,261	5,323	416,075	40,376	260,261	42,187	797,071	413,154	395,862	82,070	30,691	1,056
Jul-02	795,173	636,053	511,266	4,280	463,464	69,132	630,464	25,312	601,963	299,173	393,476	64,103	53,148	635
Ago-02	724,657	539,291	429,019	21,804	278,073	35,479	378,278	55,104	765,468	407,144	412,703	70,382	79,409	4,701
Sep-02	654,879	577,640	501,856	39,961	233,636	23,628	244,769	158,640	843,040	532,278	443,635	48,795	50,928	2,820
Oct-02	774,433	534,818	447,193	33,519	166,078	41,998	260,486	210,268	787,716	525,093	449,196	57,062	74,621	16,669
Nov-02	597,519	417,010	321,276	26,605	771,323	66,976	1,110,357	437,008	595,809	456,227	420,356	193,811	216,267	19,954
Dic-02	469,691	351,722	260,274	16,657	1,284,674	46,346	1,363,884	391,585	524,619	423,676	416,361	137,742	136,055	18,840



CALCULOS PRONOSTICOS CON METODO SUAVIZACION EXPONENCIAL $\alpha = 0.9$

MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	518,622	504,836	185,952	7,906	364,696	50,076	466,128	200,304	479,100	365,176	358,490	0	0	0
Mar-02	436,134	95,600	53,768	33,620	396,490	17,449	324,173	172,872	435,944	322,165	356,142	0	0	0
Abr-02	454,569	773,526	416,513	7,097	731,029	22,373	627,057	27,097	956,133	400,229	378,991	10,493	125,820	6,610
May-02	718,816	637,258	403,100	2,799	477,545	87,638	52,797	2,701	835,458	482,307	399,922	1,050	12,582	661
Jun-02	980,113	895,825	669,420	280	303,920	23,558	194,386	270	881,013	413,154	395,662	180,982	25,018	66
Jul-02	870,985	547,180	593,789	2,471	519,685	80,893	1,100,128	27	386,471	299,173	393,476	51,835	80,651	7
Ago-02	644,046	417,552	339,462	43,626	51,065	8,089	110,013	39,816	923,600	407,144	412,703	76,974	114,085	9,781
Sep-02	1,009,694	613,402	583,348	64,876	165,399	6,078	51,034	291,530	969,338	532,278	443,635	22,472	18,886	972
Oct-02	689,347	484,862	397,013	27,931	119,932	53,204	278,775	288,094	731,192	526,093	449,196	66,758	101,033	31,690
Nov-02	367,869	264,757	167,862	17,178	1,495,689	100,316	2,166,722	728,216	357,224	458,227	420,356	364,504	395,966	26,876
Dic-02	264,891	254,887	167,679	7,915	1,998,789	28,392	1,786,131	363,882	407,602	423,976	416,361	84,726	58,259	13,639

CALCULOS PRONOSTICOS CON METODO TENDENCIA $\alpha = 0.1$ $\beta = 0.1$

MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-02	0	512,603	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	526,601	469,497	188,813	8,030	390,614	50,846	473,299	203,386	486,471	370,793	374,068	0	0	0
Mar-02	523,620	514,368	175,202	11,268	397,323	47,544	482,331	202,775	487,756	363,985	365,629	0	0	0
Abr-02	523,232	533,156	207,543	10,892	444,220	45,236	477,463	184,404	562,453	385,322	394,103	1,283	15,376	606
May-02	554,389	584,223	233,077	10,283	454,486	50,876	431,339	164,946	594,188	415,663	422,040	1,259	16,084	792
Jun-02	612,886	687,815	290,460	9,400	445,662	47,736	408,624	145,784	641,071	412,100	423,659	23,331	17,575	771
Jul-02	652,993	578,671	332,451	8,810	463,316	52,394	495,169	127,061	622,270	388,031	425,867	26,052	26,549	743
Ago-02	664,805	594,207	343,121	13,209	421,288	47,334	448,031	119,954	676,627	412,270	450,827	35,005	38,747	1,899
Sep-02	722,424	590,498	386,950	19,625	397,623	42,951	406,019	136,894	727,393	462,249	489,630	35,728	39,360	1,841
Oct-02	733,949	560,626	399,693	21,099	368,409	45,041	393,149	161,026	746,898	468,293	502,372	42,268	48,925	5,619
Nov-02	708,142	532,023	386,118	21,589	508,162	52,140	608,274	218,946	719,327	465,436	476,580	84,294	94,089	8,362
Dic-02	672,499	494,986	375,389	20,975	690,930	49,267	750,347	235,747	702,113	464,220	474,366	87,417	93,204	9,451

CALCULOS PRONOSTICOS CON METODO TENDENCIA $\alpha = 0.1$ $\beta = 0.4$

MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	526,601	512,603	188,813	8,030	390,614	50,846	473,299	203,386	486,471	370,793	374,068	0	0	0
Mar-02	520,631	465,623	170,710	12,118	397,639	46,434	457,385	201,769	486,096	360,571	361,781	0	0	0
Abr-02	515,663	499,943	207,636	12,269	455,777	42,431	470,870	178,772	566,151	383,609	393,617	1,633	19,572	1,028
May-02	549,646	522,044	243,117	11,805	475,940	46,166	409,226	146,124	627,388	422,028	430,239	1,871	22,424	1,178
Jun-02	624,711	686,279	323,018	10,692	469,970	44,166	366,781	112,696	700,152	422,497	437,554	30,147	27,790	1,266
Jul-02	686,629	603,087	392,607	9,642	492,042	49,389	461,007	78,104	692,327	393,026	442,783	39,493	41,024	1,294
Ago-02	716,516	597,887	424,709	14,773	438,863	43,364	407,294	57,817	764,864	417,636	474,583	53,781	59,242	2,780
Sep-02	796,125	617,899	491,694	23,405	396,824	37,086	348,867	71,218	837,023	466,966	526,727	58,808	62,638	2,926
Oct-02	862,291	613,559	549,627	27,095	846,353	48,360	927,829	237,703	744,079	467,139	472,097	149,321	166,662	28,892
Nov-02	801,133	571,694	511,024	29,729	499,393	46,936	883,945	182,058	839,392	494,112	522,084	124,006	137,068	19,137
Dic-02	748,026	522,649	490,796	26,638	743,275	44,669	804,666	225,807	802,791	492,920	512,945	137,079	146,131	14,589

CALCULOS PRONOSTICOS CON METODO TENDENCIA $\alpha = 0.1$ $\beta = 0.9$

MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	526,601	512,603	186,813	8,030	390,614	50,846	473,299	203,386	486,471	370,793	374,068	0	0	0
Mar-02	515,850	432,499	163,222	13,535	397,698	44,583	449,140	200,090	483,330	354,914	355,369	0	0	0
Abr-02	503,445	477,750	209,390	14,426	476,011	37,505	466,557	184,186	586,537	381,207	393,053	2,216	28,662	127
May-02	543,643	509,796	260,922	13,955	519,104	44,283	374,442	116,016	691,430	433,861	444,909	2,846	34,097	289
Jun-02	647,813	604,309	377,361	12,042	604,933	39,610	303,147	92,221	791,655	440,460	460,980	41,340	42,826	3,431
Jul-02	746,429	640,195	467,405	9,753	627,759	46,795	418,835	8,206	789,768	400,156	466,702	69,226	50,686	4,371
Ago-02	797,961	640,648	543,224	15,880	447,441	40,324	365,182	-22,186	873,348	423,184	507,562	81,440	95,187	5,013
Sep-02	911,056	663,582	630,118	27,572	366,613	31,933	292,479	2,128	956,532	485,710	575,463	89,242	89,250	5,342
Oct-02	0	650,484	0	0	0	0	0	0	0	0	607,436	0	0	0
Nov-02	897,372	578,762	616,927	36,646	463,497	46,055	617,092	202,199	905,627	528,903	562,173	169,443	180,141	5,783
Dic-02	784,139	486,295	539,756	35,804	808,787	45,987	982,369	307,334	802,534	518,185	527,036	186,930	192,635	9,152

CALCULOS PRONOSTICOS CON METODO TENDENCIA $\alpha = 0.4$ $\beta = 0.1$

MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	526,601	512,603	186,813	8,030	390,614	50,846	473,299	203,386	486,471	370,793	374,068	0	0	0
Mar-02	490,742	316,881	125,787	20,619	399,694	35,327	407,915	191,700	469,500	326,628	323,308	0	0	0
Abr-02	479,720	540,216	268,312	14,633	569,483	29,157	470,831	113,843	714,208	411,627	438,826	5,132	61,512	3,231
May-02	600,463	586,799	337,105	9,813	537,020	59,971	289,963	68,255	786,594	505,618	515,585	3,341	40,039	2,109
Jun-02	793,654	749,234	511,787	5,600	442,190	40,558	231,025	22,872	852,734	435,765	463,802	90,561	37,169	1,342
Jul-02	851,619	670,621	569,204	4,042	488,544	60,918	642,734	260	654,371	309,061	434,128	75,228	61,607	832
Ago-02	781,828	570,634	485,662	23,019	283,365	35,791	385,182	-22,186	873,348	423,184	507,889	81,440	95,187	6,246
Sep-02	911,056	663,582	630,118	27,572	366,613	31,933	292,479	2,128	956,532	485,710	616,217	89,242	89,250	3,362
Oct-02	0	650,484	0	0	0	0	0	0	0	0	585,867	0	0	17,495
Nov-02	897,372	578,762	616,927	36,646	453,497	46,055	617,092	202,199	905,627	528,903	415,876	169,443	180,141	22,873
Dic-02	784,139	486,295	539,756	35,804	808,787	45,987	982,369	307,334	802,534	518,185	400,302	186,930	192,635	19,998

CALCULOS PRONOSTICOS CON METODO TENDENCIA $\alpha = 0.4$ $\beta = 0.4$

MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-02	0	512,603	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	526,601	261,384	186,813	8,030	390,614	50,846	473,299	203,386	486,471	370,793	374,068	0	0	0
Mar-02	478,786	524,136	125,787	24,020	400,557	30,884	388,127	187,673	462,861	313,050	307,919	0	0	0
Abr-02	458,409	606,771	268,312	17,554	614,065	21,271	459,339	86,336	769,980	414,959	448,023	6,532	78,288	4,113
May-02	609,169	828,173	337,105	10,502	587,836	66,195	208,789	7,400	885,830	541,919	556,000	4,740	56,816	2,985
Jun-02	868,010	743,415	511,787	3,662	457,732	39,306	142,666	-41,146	990,988	462,352	497,730	115,453	49,624	1,830
Jul-02	961,431	595,997	569,204	492	491,406	65,185	688,557	-63,690	699,804	288,717	447,720	103,823	76,436	845
Ago-02	868,903	606,619	485,662	24,365	219,536	35,377	396,816	-11,142	847,555	405,768	525,289	110,061	110,649	6,166
Sep-02	1,012,047	525,393	562,740	53,199	114,793	15,109	195,190	158,060	951,909	586,609	657,827	73,467	71,149	4,063
Oct-02	893,228	336,931	502,720	48,437	31,749	37,139	195,476	269,834	867,108	601,274	622,864	73,348	94,472	21,732
Nov-02	588,119	218,627	368,776	37,250	853,670	75,081	1,271,709	613,826	572,372	505,801	392,877	256,503	289,378	29,622
Dic-02	327,468	109,024	279,357	22,041	1,701,348	55,481	1,665,450	592,266	409,075	436,748	340,296	194,921	200,139	25,860

CALCULOS PRONOSTICOS CON METODO TENDENCIA $\alpha = 0.4$ $\beta = 0.9$

MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	526,601	512,603	188,813	8,030	390,614	50,846	473,299	203,386	486,471	370,793	374,068	0	0	0
Mar-02	458,889	188,889	77,889	29,687	401,994	23,480	355,147	180,980	451,797	290,422	282,270	0	0	0
Abr-02	429,207	526,936	314,824	20,610	689,576	10,497	480,739	42,038	866,475	427,764	471,560	8,865	106,248	5,681
May-02	642,942	685,336	466,207	7,845	647,650	62,045	126,065	-60,026	1,022,535	609,355	628,630	6,327	75,828	3,983
Jun-02	1,007,368	987,470	759,775	-3,568	425,955	45,069	45,510	-100,014	1,092,656	491,941	534,335	156,267	50,341	1,591
Jul-02	1,112,034	829,859	619,243	-7,068	431,393	78,413	809,335	-88,002	622,010	218,056	424,386	136,581	72,369	-416
Ago-02	901,520	539,567	502,579	28,939	65,780	38,285	495,966	20,728	741,130	366,400	502,005	121,897	116,078	6,736
Sep-02	1,001,279	492,600	548,239	71,873	-60,303	1,153	163,201	284,623	892,048	630,722	682,290	49,872	57,996	4,283
Oct-02	777,446	390,666	376,374	63,026	-60,482	30,778	116,098	429,980	807,297	671,086	635,456	38,583	83,309	27,863
Nov-02	354,194	183,262	91,066	37,648	1,136,801	89,026	1,730,490	837,927	423,838	516,237	301,101	288,919	350,280	38,011
Dic-02	32,494	89,605	-36,998	7,706	2,360,119	66,664	2,451,259	715,977	228,944	381,760	216,875	218,043	228,627	29,123

CALCULOS PRONOSTICOS CON METODO TENDENCIA $\alpha = 0.9$ $\beta = 0.1$

MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	526,601	512,603	188,813	8,030	390,614	50,846	473,299	203,386	486,471	370,793	374,068	0	0	0
Mar-02	435,944	62,520	43,428	36,204	403,647	14,865	317,220	173,241	439,073	264,399	252,774	0	0	0
Abr-02	455,422	807,132	442,069	7,163	772,110	20,279	539,605	12,485	1,010,575	510,231	575,432	11,647	138,402	7,271
May-02	746,121	660,881	426,569	2,168	491,973	92,518	18,741	-14,434	878,064	622,872	612,164	1,165	13,966	734
Jun-02	1,033,738	942,181	719,254	-525	297,124	22,086	172,871	-15,827	923,157	339,323	387,008	198,987	26,401	14
Jul-02	910,963	556,778	623,008	1,840	523,009	84,652	1,172,400	-14,542	363,321	128,885	374,545	58,764	87,473	-59
Ago-02	656,909	409,941	343,057	47,087	18,265	4,764	88,146	85,690	962,037	544,271	584,683	82,993	125,170	10,631
Sep-02	1,056,098	624,038	614,106	70,667	131,457	2,130	13,803	308,992	1,013,826	737,414	740,696	22,583	18,881	1,023
Oct-02	701,992	483,642	397,485	29,731	95,495	65,266	266,333	305,799	748,487	651,528	634,075	70,730	108,224	34,612
Nov-02	343,942	240,350	142,448	17,341	1,610,887	106,504	2,343,372	788,384	392,846	369,855	175,218	398,246	432,722	29,452
Dic-02	229,183	229,380	162,046	6,974	2,167,984	27,243	1,931,063	386,427	388,289	372,595	355,436	90,434	60,894	14,615

CALCULOS PRONOSTICOS CON METODO TENDENCIA $\alpha = 0.9$ $\beta = 0.4$

MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	526,601	512,603	188,813	8,030	390,614	50,846	473,299	203,386	486,471	370,793	374,068	0	0	0
Mar-02	409,044	-62,347	2,998	43,855	405,687	4,969	272,697	184,180	424,136	233,850	218,148	0	0	0
Abr-02	441,097	927,039	523,766	4,163	872,245	15,030	589,402	-38,079	1,154,734	555,915	639,409	14,697	176,148	9,253
May-02	817,254	712,146	482,282	-2,124	478,715	109,838	-100,424	-54,317	935,334	686,235	666,443	378	4,530	238
Jun-02	1,168,824	1,039,317	823,734	-4,078	221,319	14,861	133,375	-36,386	963,283	296,475	362,512	252,036	19,001	-749
Jul-02	949,051	606,426	656,818	614	532,095	96,191	1,432,622	-21,484	204,147	33,916	339,638	52,405	99,266	-578
Ago-02	593,725	321,186	271,202	69,013	-108,643	-9,882	-33,889	113,471	1,019,384	597,138	619,252	80,687	143,089	13,255
Sep-02	1,110,722	624,508	630,027	85,059	76,789	-9,236	-112,294	391,873	1,074,518	833,474	806,858	3,332	-616	147
Oct-02	641,114	451,301	349,249	26,541	63,556	76,492	283,399	368,606	704,208	557,062	514,386	69,980	116,648	42,873
Nov-02	193,473	150,769	33,586	9,829	2,011,994	126,525	2,922,655	946,410	177,151	310,741	53,246	487,867	527,445	33,422
Dic-02	99,470	169,944	83,419	-1,089	2,587,846	17,688	2,198,242	372,561	297,196	329,847	322,547	63,784	18,909	12,060

CALCULOS PRONOSTICOS CON METODO TENDENCIA α = 0.9 β = 0.9														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-02	526,601	512,603	186,813	8,030	390,614	50,846	473,299	203,386	488,471	370,793	374,088	0	0	0
Mar-02	384,209	-62,347	-64,387	66,606	408,820	-11,692	198,493	149,077	399,241	182,935	160,439	0	0	0
Abr-02	449,504	927,039	708,444	-10,001	1,036,808	18,276	672,489	-111,480	1,412,923	668,713	787,588	19,945	239,056	12,558
May-02	982,361	712,145	487,616	-8,335	336,781	148,483	-319,294	-56,957	882,990	745,318	692,187	-4,713	-56,493	-2,968
Jun-02	1,286,416	1,039,317	904,353	-3,597	76,078	-16,297	199,329	-5,389	884,318	133,505	206,958	340,306	4,855	-2,116
Jul-02	836,313	506,426	566,406	4,467	644,806	114,873	1,953,962	4,139	-98,411	-95,076	303,523	-18,188	131,780	-317
Ago-02	399,696	321,186	79,833	81,434	-300,878	-43,595	-533,975	172,391	1,290,249	816,859	734,158	83,716	182,730	18,608
Sep-02	1,271,146	624,508	736,373	94,882	133,801	-14,123	-274,186	496,606	1,163,081	985,371	890,026	-23,452	-58,871	-4,298
Oct-02	501,409	451,301	280,072	-408	116,954	113,931	453,827	336,217	636,401	429,728	388,590	94,880	147,641	56,731
Nov-02	-2,119	150,769	-94,689	-3,719	2,734,976	150,446	3,943,460	1,117,773	-55,211	168,756	-150,668	645,130	682,897	30,451
Dic-02	83,708	169,944	113,969	-3,847	2,811,389	-28,876	1,944,918	144,140	352,816	330,693	423,212	-88,481	-167,186	248

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.1 γ = 0.1														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	343,260	39,912	31,847	29,861	324,492	11,012	250,751	135,668	348,451	206,939	197,603	0	0	0
Mar-01	368,013	672,274	377,666	3,476	634,432	16,137	450,283	8,570	925,087	415,907	470,668	10,136	121,490	6,414
Abr-01	604,250	490,506	335,984	1,970	373,962	74,841	84	0	872,769	487,119	474,637	0	0	0
May-01	816,399	726,268	590,273	0	238,680	12,857	174,074	0	728,550	249,115	290,296	183,176	24,059	0
Jun-01	695,311	398,210	488,626	2,352	450,078	68,088	998,825	0	265,268	103,282	300,882	34,426	80,453	0
Jul-01	498,323	312,698	269,754	41,708	0	0	0	77,389	810,047	455,419	470,795	74,509	110,909	10,122
Ago-01	852,913	495,827	525,619	59,050	141,995	4,545	37,208	244,289	808,732	580,877	585,165	16,550	7,776	0
Sep-01	631,187	368,993	315,011	20,995	98,840	63,931	254,695	223,474	585,720	414,821	404,754	68,339	104,974	33,385
Oct-01	269,934	187,209	114,395	14,112	1,406,221	80,898	1,988,976	602,877	282,565	254,877	130,364	380,146	409,921	25,217
Nov-01	205,980	197,648	145,904	6,084	1,763,200	16,793	1,461,845	260,716	343,766	302,921	308,437	51,339	19,846	11,652
Dic-01	216,650	137,395	83,612	2,348	723,541	54,041	785,676	76,925	277,816	129,992	149,971	81,027	151,428	94,929
Ene-02	526,060	491,350	200,453	8,685	407,627	48,361	484,854	193,130	497,236	367,323	372,671	0	0	0
Feb-02	431,896	48,678	41,938	39,856	421,597	13,347	321,268	164,166	446,032	259,705	246,104	0	0	0
Mar-02	459,937	821,946	487,354	4,529	810,445	22,069	589,474	10,410	1,043,739	517,364	587,592	13,678	163,943	8,613
Abr-02	760,798	601,158	425,938	2,510	470,683	91,410	105	0	842,300	603,371	589,120	0	0	0
May-02	1,009,364	892,185	736,842	0	298,671	15,759	215,572	0	904,004	307,462	358,684	231,003	30,345	0
Jun-02	856,063	490,277	601,884	2,894	553,090	83,730	1,226,841	0	314,310	127,070	370,316	42,258	98,768	0
Jul-02	611,416	385,816	316,345	50,606	0	0	0	95,309	991,001	559,083	577,690	89,372	133,045	12,108
Ago-02	1,043,562	613,000	634,047	70,816	171,512	5,823	45,111	301,730	984,104	711,535	716,249	18,291	9,146	0
Sep-02	648,524	464,447	378,994	24,935	118,619	56,889	307,330	276,756	709,626	507,598	494,472	79,070	121,466	38,549
Oct-02	329,029	232,287	136,028	16,627	1,678,931	100,570	2,391,109	748,428	317,015	348,013	169,061	433,904	467,917	28,733
Nov-02	250,794	245,631	172,621	7,123	2,084,883	19,675	1,752,489	311,927	413,975	370,102	375,921	57,960	22,407	13,135
Dic-02	263,808	170,987	98,647	2,736	867,901	67,445	940,028	95,893	333,938	158,783	182,686	90,693	169,500	106,126

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.1 γ = 0.4														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	345,250	40,093	32,037	30,115	329,062	11,124	254,749	137,873	350,408	208,401	198,840	0	0	0
Mar-01	369,862	674,929	379,598	3,504	642,125	18,299	456,463	8,692	629,088	418,458	473,446	10,272	123,071	6,541
Abr-01	606,851	492,173	337,443	1,992	377,825	76,417	85	0	675,555	489,680	476,846	0	0	0
May-01	819,364	728,357	592,426	0	240,763	12,941	176,796	0	791,092	250,221	291,436	184,871	24,278	0
Jun-01	687,404	399,160	490,098	2,362	463,312	68,455	1,007,014	0	265,995	103,842	301,832	34,687	81,053	0
Jul-01	499,536	313,303	260,388	41,851	0	0	0	77,928	811,941	466,776	472,037	74,965	111,575	10,214
Ago-01	854,644	496,877	626,627	59,210	142,644	4,861	37,403	246,821	810,218	582,034	586,375	16,625	7,811	0
Sep-01	531,951	367,303	315,467	21,038	99,182	54,069	255,698	224,384	586,531	415,650	405,383	68,688	105,350	33,568
Oct-01	270,206	187,356	114,513	14,132	1,409,684	81,042	1,994,605	604,578	282,821	285,027	130,528	381,137	410,970	25,315
Nov-01	206,109	197,742	145,999	6,089	1,755,916	15,810	1,464,398	251,142	343,976	303,151	308,645	61,426	19,879	11,681
Dic-01	216,711	137,413	83,639	2,348	724,083	64,064	786,324	76,979	277,896	130,036	160,015	81,097	151,557	95,052
Ene-02	622,938	489,072	199,226	8,609	401,778	47,857	477,004	189,950	494,375	364,871	370,284	0	0	0
Feb-02	432,051	48,691	41,954	39,878	421,986	13,355	321,597	164,317	446,192	256,817	248,200	0	0	0
Mar-02	469,988	821,993	487,427	4,530	810,721	22,072	589,678	10,412	1,043,867	617,431	587,662	13,884	164,014	8,619
Abr-02	750,720	601,091	425,911	2,510	470,602	91,368	105	0	842,230	603,289	589,053	0	0	0
May-02	1,009,070	891,953	736,657	0	296,388	15,750	215,413	0	903,766	307,350	358,670	230,874	30,328	0
Jun-02	885,677	490,088	601,636	2,892	562,536	83,658	1,226,201	0	314,179	126,999	370,134	42,218	98,674	0
Jul-02	611,057	385,627	316,172	50,567	0	0	0	95,138	990,461	568,660	577,324	89,264	132,873	12,084
Ago-02	1,042,856	612,648	833,629	70,751	171,239	5,616	45,027	301,099	983,463	710,927	715,711	18,261	9,131	0
Sep-02	648,017	454,155	376,710	24,908	118,405	66,791	306,686	276,111	709,104	507,110	494,053	78,922	121,244	38,441
Oct-02	328,750	232,126	135,916	16,608	1,675,605	100,412	2,385,665	746,549	316,761	347,650	159,915	433,009	466,970	28,644
Nov-02	250,569	245,463	172,469	7,115	2,080,471	19,642	1,748,247	311,105	413,622	369,695	376,557	57,831	22,358	13,091
Dic-02	263,364	170,859	98,457	2,733	856,019	67,333	937,684	95,632	333,642	158,603	182,503	90,482	169,112	105,755

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.1 γ = 0.9														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	348,616	40,397	32,358	30,647	336,987	11,317	261,696	141,703	353,713	210,882	200,936	0	0	0
Mar-01	372,992	679,405	382,864	3,547	655,432	18,676	467,236	8,903	635,853	422,787	477,778	10,507	125,825	6,767
Abr-01	611,252	494,983	339,915	2,003	384,808	76,403	88	0	680,266	494,026	480,687	0	0	0
May-01	824,382	731,880	596,071	0	244,340	13,084	178,794	0	735,390	252,098	293,368	187,825	24,658	0
Jun-01	700,945	400,763	492,592	2,379	468,907	69,085	1,021,248	0	267,242	104,287	303,491	35,143	82,097	0
Jul-01	501,594	314,322	261,460	42,097	0	0	0	78,865	815,145	469,081	474,140	75,760	112,735	10,380
Ago-01	857,306	497,842	628,333	59,493	143,769	4,887	37,740	247,839	812,731	584,340	588,426	16,756	7,875	0
Sep-01	533,244	368,007	316,241	21,112	99,773	54,305	257,442	225,969	587,903	416,787	406,449	69,022	106,004	33,892
Oct-01	270,688	187,604	114,712	14,168	1,415,629	81,288	2,004,132	607,543	283,255	285,822	130,767	382,865	412,797	25,491
Nov-01	206,327	197,900	146,161	6,099	1,760,621	15,839	1,468,846	251,886	344,332	303,642	308,998	61,576	19,936	11,734
Dic-01	216,816	137,456	83,685	2,361	725,024	64,106	787,461	77,074	278,031	130,111	160,094	81,219	151,781	95,272
Ene-02	517,741	485,261	197,162	8,483	392,052	47,019	463,960	184,673	489,611	360,287	366,310	0	0	0
Feb-02	432,313	48,712	41,982	39,916	422,660	13,368	322,173	164,583	446,462	256,907	248,362	0	0	0
Mar-02	460,076	822,085	487,551	4,532	811,202	22,077	570,036	10,416	1,044,085	617,646	587,781	13,895	164,139	8,629
Abr-02	760,588	600,979	425,865	2,509	470,465	91,345	105	0	842,112	603,152	588,939	0	0	0
May-02	1,008,574	891,663	736,345	0	296,072	15,733	215,136	0	903,365	307,161	358,378	230,649	30,299	0
Jun-02	855,026	489,770	601,218	2,889	551,681	83,529	1,222,708	0	313,958	126,879	369,828	42,146	98,511	0
Jul-02	610,453	385,309	315,879	50,502	0	0	0	94,844	989,548	567,996	576,704	89,049	132,573	12,041
Ago-02	1,041,834	612,058	832,921	70,639	170,787	5,603	44,883	300,007	982,380	709,896	714,799	18,209	9,106	0
Sep-02	647,161	453,665	376,231	24,864	118,033	66,624	305,673	274,994	708,220	506,283	493,345	78,666	120,867	38,249
Oct-02	328,278	231,856	135,726	16,575	1,669,859	100,141	2,376,194	743,298	316,331	347,035	159,687	431,460	465,321	28,485
Nov-02	250,189	245,153	172,213	7,100	2,072,880	19,587	1,740,887	309,681	413,026	369,004	374,939	57,607	22,273	13,014
Dic-02	262,950	170,644	98,304	2,727	852,767	67,137	933,661	95,182	333,143	158,296	182,192	90,114	168,438	105,094

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.4 γ = 0.1														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	343,260	39,912	31,847	29,861	324,492	11,012	250,751	135,666	348,451	208,939	197,603	0	0	0
Mar-01	367,960	672,369	377,463	3,476	634,076	18,139	450,051	8,570	824,843	415,859	470,822	10,124	121,321	6,404
Abr-01	603,981	490,790	335,342	1,965	373,266	74,883	84	0	672,075	486,945	474,422	0	0	0
May-01	816,562	727,236	587,756	0	237,707	12,875	173,508	0	726,892	248,936	290,020	181,283	23,811	0
Jun-01	694,072	399,203	484,896	2,328	446,870	68,271	993,227	0	264,225	103,139	300,361	33,602	78,998	0
Jul-01	496,963	313,960	256,648	41,054	0	0	0	77,665	804,940	454,625	469,632	72,428	107,815	9,826
Ago-01	849,821	498,868	516,736	67,746	139,822	4,578	36,771	245,881	801,641	579,421	583,274	14,939	7,469	0
Sep-01	528,693	369,990	307,911	20,379	96,846	84,448	250,783	226,293	578,919	413,711	403,075	64,777	99,610	31,582
Oct-01	268,345	169,244	111,119	13,587	1,370,528	81,907	1,950,822	609,397	288,704	283,751	129,712	355,138	382,982	23,505
Nov-01	204,509	200,281	140,802	5,809	1,699,359	16,037	1,428,126	264,130	337,608	301,751	305,522	47,240	18,283	10,696
Dic-01	214,880	139,544	80,162	2,223	697,631	65,032	764,576	76,189	271,948	129,410	148,090	73,427	137,236	85,815
Ene-02	521,005	500,165	190,975	8,167	390,959	49,361	470,116	196,829	485,213	365,468	369,682	0	0	0
Feb-02	427,280	49,649	39,724	37,159	402,542	13,663	310,547	167,746	434,017	257,277	245,829	0	0	0
Mar-02	464,636	839,819	469,353	4,196	770,889	22,643	549,083	10,663	1,013,230	514,351	581,812	11,907	142,721	7,485
Abr-02	741,794	616,202	399,926	2,314	446,454	93,973	101	0	816,294	599,841	683,136	0	0	0
May-02	997,243	914,329	690,102	0	280,836	16,229	207,309	0	875,298	305,762	355,075	197,747	26,977	0
Jun-02	846,190	503,088	583,100	2,855	523,622	86,359	1,179,748	0	304,313	126,456	366,795	36,029	84,210	0
Jul-02	604,985	396,333	296,085	46,441	0	0	0	98,321	960,269	556,977	572,780	76,132	113,336	10,312
Ago-02	1,034,273	630,416	594,709	65,141	162,845	5,813	43,527	311,668	955,387	710,004	711,340	15,621	7,811	0
Sep-02	644,024	467,770	354,802	23,027	112,997	69,207	297,414	286,146	690,683	507,441	492,046	67,901	104,308	33,117
Oct-02	327,486	239,240	128,601	15,438	1,608,113	104,102	2,322,306	774,282	309,524	346,502	158,628	375,699	405,141	24,895
Nov-02	250,228	253,060	164,091	6,858	2,004,379	20,367	1,709,095	322,778	405,649	371,504	378,778	50,720	19,607	11,505
Dic-02	263,680	176,168	94,260	2,577	829,355	69,600	920,873	99,213	328,508	159,719	183,055	80,366	150,194	94,148

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.4 γ = 0.4														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	345,260	40,093	32,037	30,115	329,062	11,124	254,749	137,873	350,406	208,401	198,840	0	0	0
Mar-01	369,747	674,934	379,328	3,500	641,510	18,296	456,042	8,688	828,708	418,323	473,293	10,264	122,849	6,526
Abr-01	608,286	492,269	336,947	1,976	376,711	75,398	84	0	674,566	489,234	476,396	0	0	0
May-01	817,865	728,856	589,430	0	239,319	12,940	174,647	0	726,867	249,795	290,905	182,602	23,981	0
Jun-01	695,337	399,774	485,790	2,335	448,832	68,493	998,187	0	264,672	103,369	300,953	33,681	79,364	0
Jul-01	497,400	314,174	256,880	41,107	0	0	0	77,858	805,628	455,112	470,079	72,598	108,083	9,860
Ago-01	849,844	498,869	516,766	67,752	139,839	4,576	36,775	245,878	801,672	579,436	583,291	14,942	7,471	0
Sep-01	528,316	369,772	307,701	20,360	96,687	84,374	250,306	224,810	578,531	413,346	402,767	64,669	99,347	31,503
Oct-01	267,989	169,040	110,974	13,563	1,368,243	81,705	1,943,616	607,020	288,377	283,288	129,626	353,975	381,750	23,390
Nov-01	204,139	199,991	140,649	5,794	1,692,046	15,984	1,421,091	262,793	337,021	301,062	305,922	47,023	18,181	10,622
Dic-01	214,367	139,304	79,959	2,216	693,928	64,817	760,088	77,703	271,386	129,069	148,533	73,017	136,484	85,095
Ene-02	516,693	495,936	189,346	8,058	383,129	48,664	459,487	192,308	481,319	361,757	366,280	0	0	0
Feb-02	426,577	49,585	39,658	37,071	400,940	13,623	309,142	166,960	433,329	256,760	245,392	0	0	0
Mar-02	463,946	838,823	468,640	4,187	768,041	22,582	546,782	10,617	1,011,744	513,399	580,858	11,868	142,140	7,438
Abr-02	740,799	614,569	399,372	2,309	444,985	93,751	100	0	815,231	598,860	682,290	0	0	0
May-02	996,113	913,526	689,286	0	280,050	16,197	206,655	0	874,332	305,340	354,640	197,110	26,895	0
Jun-02	845,424	502,736	582,596	2,851	522,345	86,223	1,176,763	0	304,045	126,316	366,436	35,934	83,993	0
Jul-02	604,650	396,131	295,875	46,393	0	0	0	98,141	959,040	556,525	572,367	75,982	113,116	10,281
Ago-02	1,033,824	630,209	594,432	65,097	162,667	5,809	43,473	311,300	954,978	709,629	711,007	15,600	7,801	0
Sep-02	643,686	467,696	354,718	23,019	112,934	69,183	297,231	285,984	690,535	507,309	491,933	67,855	104,236	33,083
Oct-02	327,482	239,239	128,597	15,437	1,606,024	104,101	2,322,182	774,275	309,518	346,497	158,625	375,664	405,103	24,892
Nov-02	250,258	253,093	164,117	6,859	2,005,138	20,373	1,709,837	322,927	405,711	371,577	378,841	50,742	19,615	11,512
Dic-02	263,760	176,200	94,289	2,578	829,967	69,636	921,645	99,299	328,602	159,776	183,115	80,434	150,319	94,267

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.4 γ = 0.9														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	348,616	40,397	32,358	30,547	336,967	11,317	261,698	141,703	353,713	210,882	200,935	0	0	0
Mar-01	372,770	679,258	382,485	3,542	664,368	18,564	466,452	8,892	835,245	422,506	477,479	10,460	125,510	6,745
Abr-01	610,220	494,780	338,857	1,994	382,686	76,278	86	0	678,779	493,119	479,740	0	0	0
May-01	821,762	731,587	592,265	0	242,108	13,051	177,176	0	732,207	251,253	292,405	184,902	24,277	0
Jun-01	697,477	400,739	487,304	2,345	462,227	68,872	1,006,812	0	265,427	103,758	301,955	34,239	80,000	0
Jul-01	498,141	314,535	257,275	41,198	0	0	0	78,187	808,793	455,940	470,836	72,894	108,496	9,922
Ago-01	849,886	498,870	516,818	57,761	139,871	4,576	38,783	245,677	801,726	579,467	583,320	14,947	7,474	0
Sep-01	527,879	369,405	307,346	20,326	96,412	54,260	249,479	223,976	677,875	412,732	402,240	64,480	99,062	31,361
Oct-01	267,386	188,698	110,729	13,620	1,358,837	61,364	1,931,856	602,901	257,825	282,503	129,210	351,943	379,604	23,184
Nov-01	203,513	199,502	140,121	5,769	1,679,404	15,894	1,408,876	250,475	336,034	299,946	304,905	46,846	18,038	10,491
Dic-01	213,883	138,901	79,696	2,205	687,897	54,460	752,237	76,859	270,435	126,489	147,944	72,302	135,175	83,812
Ene-02	509,514	401,658	186,633	7,893	370,105	47,471	441,816	184,801	474,836	365,660	360,703	0	0	0
Feb-02	426,389	49,477	39,646	36,920	398,169	13,654	306,701	165,598	432,166	265,883	244,552	0	0	0
Mar-02	452,781	837,144	457,432	4,171	763,118	22,478	642,786	10,538	1,009,232	511,784	579,244	11,772	141,128	7,355
Abr-02	739,115	613,477	398,434	2,302	442,445	93,371	100	0	813,436	597,196	580,859	0	0	0
May-02	994,200	912,176	687,909	0	278,692	16,142	205,518	0	872,699	304,624	353,904	195,999	25,752	0
Jun-02	844,129	502,145	581,660	2,645	520,311	85,990	1,171,676	0	303,590	126,080	365,829	35,770	83,616	0
Jul-02	603,865	395,790	295,820	46,312	0	0	0	97,826	958,576	555,767	671,697	75,720	112,734	10,227
Ago-02	1,033,063	629,860	593,983	65,022	162,357	5,801	43,381	310,660	954,286	708,994	710,441	15,685	7,783	0
Sep-02	643,883	467,671	354,576	23,005	112,826	69,141	296,914	285,702	690,286	507,086	491,740	67,776	104,117	33,023
Oct-02	327,474	239,236	128,592	15,436	1,605,869	104,100	2,321,960	774,259	309,509	348,588	155,821	376,803	405,039	24,885
Nov-02	250,336	253,149	164,161	6,662	2,008,447	20,384	1,711,121	323,191	405,815	371,701	375,952	50,779	19,630	11,525
Dic-02	263,896	176,272	94,339	2,580	831,025	69,903	922,884	99,449	328,765	159,879	183,217	80,553	160,536	94,460

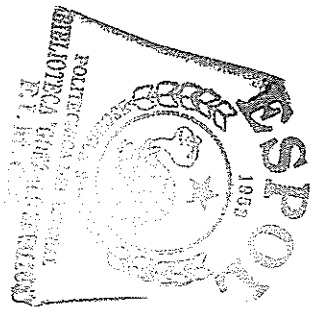
CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.9 y = 0.1														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	343,260	39,912	31,847	29,881	324,492	11,012	250,751	135,666	348,451	206,939	197,603	0	0	0
Mar-01	367,871	672,528	377,124	3,472	633,484	18,143	449,700	8,571	824,438	415,778	470,712	10,100	121,038	6,387
Abr-01	603,490	491,227	334,296	1,957	372,107	74,952	83	0	670,946	486,663	474,072	0	0	0
May-01	814,245	728,769	583,779	0	236,174	12,904	172,617	0	724,276	248,657	289,588	178,296	23,420	0
Jun-01	692,207	400,719	479,238	2,293	442,030	68,556	984,810	0	262,663	102,957	299,624	32,858	76,797	0
Jul-01	495,025	315,797	262,172	40,115	0	0	0	76,080	797,607	453,514	467,983	69,440	103,374	9,402
Ago-01	845,759	503,072	504,742	55,990	136,920	4,620	36,192	247,669	792,137	577,836	580,814	14,115	7,058	0
Sep-01	525,693	373,989	299,027	19,811	94,387	55,122	246,015	227,736	670,498	412,495	401,090	60,339	92,699	29,350
Oct-01	266,505	191,657	107,367	12,990	1,330,423	83,118	1,908,503	617,500	254,336	282,616	128,991	326,676	352,314	21,574
Nov-01	203,084	203,096	135,538	5,527	1,646,127	16,302	1,394,807	257,994	331,330	300,705	304,680	43,048	16,644	9,729
Dic-01	213,248	141,578	77,014	2,110	674,606	56,988	746,340	79,468	266,661	126,956	147,954	66,584	124,451	77,726
Ene-02	517,169	507,304	183,499	7,746	378,311	50,234	459,262	200,105	476,845	364,225	367,317	0	0	0
Feb-02	424,353	50,304	38,262	35,410	390,613	13,888	304,104	170,469	426,178	266,495	244,437	0	0	0
Mar-02	451,976	849,484	444,541	4,024	751,495	22,973	639,658	10,823	997,346	513,129	579,056	11,009	131,948	6,934
Abr-02	738,655	621,076	389,707	2,240	437,954	95,133	99	0	806,398	599,063	581,231	0	0	0
May-02	995,235	921,219	678,294	0	277,674	16,390	205,912	0	868,679	305,828	354,631	189,894	24,943	0
Jun-02	846,772	505,933	558,884	2,631	521,756	87,003	1,179,157	0	303,619	126,721	367,237	35,395	82,719	0
Jul-02	607,180	397,937	296,859	46,608	0	0	0	98,979	963,477	559,331	675,031	76,532	113,917	10,401
Ago-02	1,041,553	632,386	602,315	66,139	160,036	5,833	44,056	313,199	954,204	714,799	716,352	16,048	8,023	0
Sep-02	650,545	468,900	362,555	23,652	115,341	69,350	302,649	287,087	700,688	512,017	496,891	71,074	109,173	34,744
Oct-02	331,614	239,690	132,353	15,994	1,646,671	104,194	2,372,998	775,721	315,321	352,378	160,547	399,037	430,284	26,484
Nov-02	253,808	253,431	169,724	6,938	2,065,244	20,366	1,751,107	322,979	414,447	375,974	380,899	54,404	21,031	12,351
Dic-02	267,666	176,354	97,753	2,693	856,048	69,745	944,577	99,174	336,126	161,719	185,678	86,622	161,886	101,489

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.9 γ = 0.4														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	345,250	40,093	32,037	30,115	329,062	11,124	254,749	137,973	350,406	208,401	198,840	0	0	0
Mar-01	369,564	674,943	378,881	3,495	640,484	18,290	455,341	8,682	828,076	418,099	473,039	10,222	122,478	6,503
Abr-01	805,368	492,430	335,352	1,965	374,899	75,367	84	0	672,959	488,512	475,667	0	0	0
May-01	815,624	729,665	584,714	0	237,073	12,940	173,363	0	725,375	249,133	290,077	179,036	23,515	0
Jun-01	892,273	400,743	479,295	2,293	442,151	68,565	985,101	0	252,588	102,988	299,655	32,870	76,823	0
Jul-01	494,434	315,494	251,874	40,049	0	0	0	77,809	796,899	452,850	467,378	69,231	103,059	9,360
Ago-01	843,894	502,192	503,624	55,814	136,194	4,602	35,973	246,099	790,460	576,277	579,429	14,034	7,018	0
Sep-01	624,174	373,140	298,150	19,529	93,726	84,838	244,057	225,861	568,909	411,000	399,838	59,871	91,994	29,008
Oct-01	285,749	191,174	107,012	12,928	1,319,943	82,644	1,891,557	611,873	253,543	281,703	128,542	323,778	349,248	21,287
Nov-01	202,409	202,588	135,085	5,500	1,632,062	18,209	1,382,283	255,659	330,292	299,623	303,616	42,657	16,485	9,596
Dic-01	212,620	141,258	76,777	2,101	669,697	85,701	740,214	78,818	285,898	128,495	147,485	66,020	123,417	76,736
Ene-02	512,884	504,097	181,808	7,650	370,618	49,508	448,754	195,827	471,988	380,541	364,017	0	0	0
Feb-02	424,088	60,279	36,236	35,376	389,990	13,871	303,661	170,177	425,910	256,299	244,271	0	0	0
Mar-02	452,160	849,755	444,727	4,027	752,238	22,989	640,283	10,835	997,737	513,383	579,310	11,022	132,095	6,946
Abr-02	739,694	621,685	390,226	2,244	439,332	95,345	100	0	807,396	599,990	582,030	0	0	0
May-02	997,133	922,573	679,652	0	278,666	16,444	207,007	0	870,296	306,537	355,361	190,953	25,079	0
Jun-02	848,706	508,823	560,223	2,640	524,706	87,349	1,186,661	0	304,296	127,073	368,143	35,830	83,258	0
Jul-02	608,638	398,674	297,605	46,776	0	0	0	99,039	965,732	560,964	576,522	77,062	114,692	10,509
Ago-02	1,043,959	633,500	603,749	66,418	165,984	5,856	44,336	315,185	968,345	716,779	718,115	16,153	8,075	0
Sep-02	651,829	469,816	363,299	23,721	115,901	69,590	304,306	288,664	702,031	513,245	497,949	71,471	109,772	35,035
Oct-02	332,120	239,973	132,563	16,030	1,654,859	104,473	2,383,055	779,027	315,790	353,033	160,812	400,753	432,100	26,654
Nov-02	254,063	253,628	169,901	6,948	2,070,348	20,402	1,755,998	323,885	414,852	376,434	381,313	64,557	21,089	12,403
Dic-02	267,791	176,417	97,800	2,695	857,029	69,601	945,798	99,302	338,278	161,811	185,771	86,736	162,094	101,688

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.1 β = 0.9 γ = 0.9														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	348,616	40,397	32,358	30,547	336,967	11,317	261,696	141,703	353,713	210,882	200,935	0	0	0
Mar-01	372,401	679,014	381,854	3,534	652,694	18,543	466,144	8,874	834,232	422,037	476,980	10,436	124,984	6,708
Abr-01	809,547	494,457	337,139	1,980	379,731	76,078	86	0	676,363	491,550	478,368	0	0	0
May-01	817,889	731,175	586,298	0	238,630	13,001	174,661	0	727,234	249,943	290,910	180,325	23,581	0
Jun-01	892,385	400,783	479,393	2,294	442,363	68,580	985,611	0	252,732	102,958	299,707	32,890	76,870	0
Jul-01	493,434	314,984	251,370	39,934	0	0	0	77,338	795,163	451,725	466,355	68,866	102,536	9,264
Ago-01	840,740	500,710	501,730	55,613	134,940	4,570	35,593	243,377	787,925	573,633	577,083	13,892	6,949	0
Sep-01	621,607	371,708	298,664	19,389	92,583	84,352	240,656	222,610	566,223	408,531	397,717	59,057	90,767	28,399
Oct-01	284,295	190,361	106,411	12,824	1,301,818	81,832	1,861,944	602,107	252,201	279,816	127,781	318,726	343,905	20,773
Nov-01	201,301	201,731	134,319	5,455	1,609,463	18,051	1,360,523	251,806	328,536	297,517	301,820	41,974	16,236	9,359
Dic-01	211,561	140,717	76,377	2,085	661,105	85,210	729,670	77,689	284,607	127,713	146,691	65,037	121,616	74,971
Ene-02	505,716	498,698	179,283	7,489	357,822	48,299	431,285	187,923	465,664	354,410	358,524	0	0	0
Feb-02	423,632	50,239	38,192	35,318	388,913	13,845	302,619	169,685	425,462	255,985	243,989	0	0	0
Mar-02	452,470	850,211	446,040	4,031	753,523	23,018	641,313	10,857	998,399	513,815	579,740	11,044	132,354	6,967
Abr-02	741,183	622,713	391,105	2,251	441,716	95,706	100	0	809,089	601,583	583,381	0	0	0
May-02	1,000,344	924,854	681,952	0	281,165	16,638	208,910	0	873,030	307,741	356,598	192,798	25,317	0
Jun-02	851,977	508,324	562,490	2,655	529,808	87,940	1,199,695	0	305,440	127,670	369,676	36,040	84,196	0
Jul-02	611,104	399,917	298,868	47,063	0	0	0	100,783	969,648	563,736	579,046	77,956	116,040	10,701
Ago-02	1,047,976	638,379	605,176	66,802	167,569	5,898	44,821	318,633	968,956	720,145	721,102	16,335	8,184	0
Sep-02	653,998	470,822	364,558	23,840	116,569	69,999	307,186	291,402	704,304	515,330	499,740	72,164	110,815	35,553
Oct-02	332,976	240,451	132,918	16,092	1,665,564	104,950	2,400,530	784,766	316,661	354,144	161,260	403,743	435,261	26,958
Nov-02	254,495	263,961	170,201	6,966	2,079,179	20,463	1,764,490	325,460	415,537	377,215	382,013	64,825	21,190	12,496
Dic-02	268,001	176,523	97,880	2,698	858,727	69,868	947,921	99,524	336,635	161,966	185,929	86,934	162,457	102,043

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.4 β = 0.1 γ = 0.1														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	343,280	39,912	31,847	29,861	324,492	11,012	260,751	135,666	348,451	208,939	197,603	0	0	0
Mar-01	367,430	673,320	375,431	3,450	630,622	18,162	447,940	8,574	822,402	415,375	470,163	9,982	119,628	5,304
Abr-01	602,200	492,609	331,266	1,933	368,902	76,176	83	0	667,723	485,946	473,134	0	0	0
May-01	812,152	731,711	576,802	0	233,664	12,664	171,226	0	719,820	248,276	288,923	173,222	22,764	0
Jun-01	690,530	402,484	473,368	2,256	437,483	68,919	977,455	0	251,107	102,831	299,006	31,923	74,611	0
Jul-01	494,166	316,995	249,685	39,617	0	0	0	78,466	793,780	453,228	497,337	67,891	101,066	9,198
Ago-01	846,896	505,147	602,999	55,735	136,666	4,642	36,177	248,939	791,684	578,882	581,603	13,980	6,991	0
Sep-01	526,235	374,164	299,500	19,652	94,650	55,178	246,732	228,183	571,229	412,961	401,551	60,554	93,177	29,563
Oct-01	267,036	191,095	108,231	13,138	1,341,580	82,693	1,921,712	616,648	265,368	283,141	129,189	334,080	360,280	22,122
Nov-01	203,577	201,897	137,666	5,641	1,668,345	16,202	1,409,951	256,796	333,714	301,116	305,364	44,803	17,320	10,155
Dic-01	214,003	140,404	78,663	2,171	687,481	55,481	787,049	78,867	269,802	129,179	148,407	70,398	131,569	52,399
Ene-02	519,503	502,242	188,390	8,022	387,077	49,669	467,043	198,120	481,882	364,987	388,712	0	0	0
Feb-02	426,655	49,762	39,423	38,854	401,056	13,719	310,123	168,711	432,416	257,220	246,587	0	0	0
Mar-02	454,885	840,847	458,946	4,195	771,921	22,694	550,288	10,701	1,013,291	514,910	582,269	11,912	142,763	7,509
Abr-02	744,161	616,779	402,446	2,333	449,595	94,098	101	0	819,972	601,690	585,008	0	0	0
May-02	1,003,079	916,182	699,184	0	284,368	16,242	209,517	0	682,815	307,341	357,092	203,337	26,710	0
Jun-02	853,086	503,555	573,870	2,717	532,833	86,383	1,196,650	0	308,035	127,336	369,661	37,484	87,608	0
Jul-02	610,923	396,650	303,143	47,799	0	0	0	98,351	974,707	561,587	578,162	79,957	119,026	10,837
Ago-02	1,047,739	632,095	612,085	67,432	166,973	5,819	44,421	312,020	973,648	717,855	720,178	16,540	8,270	0
Sep-02	651,831	468,179	365,357	23,861	115,893	69,153	303,483	285,971	703,541	512,514	497,690	72,120	110,788	35,170
Oct-02	331,099	239,096	132,368	15,993	1,648,333	103,865	2,367,905	772,670	316,017	351,681	180,270	399,310	430,604	26,454
Nov-02	252,656	252,590	168,665	6,887	2,051,704	20,296	1,740,250	321,698	412,292	374,293	379,167	53,821	20,806	12,205
Dic-02	265,830	175,642	96,671	2,659	847,137	69,484	935,866	98,777	333,286	180,693	184,427	84,869	158,798	99,501

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.4 β = 0.1 γ = 0.4														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	345,280	40,093	32,037	30,115	329,092	11,124	264,749	137,873	350,406	208,401	198,840	0	0	0
Mar-01	368,592	674,986	376,946	3,466	635,358	18,264	451,636	8,650	824,915	416,978	471,769	10,067	120,623	5,384
Abr-01	603,101	493,184	331,765	1,937	370,246	76,376	83	0	668,690	486,832	473,899	0	0	0
May-01	812,530	731,971	577,085	0	233,935	12,974	171,450	0	720,148	248,416	289,069	173,450	22,783	0
Jun-01	690,426	402,432	473,305	2,256	437,339	68,898	977,075	0	251,073	102,812	298,957	31,913	74,588	0
Jul-01	493,918	316,867	249,662	39,590	0	0	0	78,353	793,403	452,950	497,084	67,806	100,942	9,181
Ago-01	846,123	504,874	602,660	55,682	136,445	4,636	36,111	248,450	791,172	578,402	581,177	13,956	6,979	0
Sep-01	525,641	373,940	299,274	19,641	94,480	55,103	246,226	227,889	570,816	412,582	401,225	60,535	92,998	29,477
Oct-01	266,834	190,980	108,148	13,124	1,339,139	82,760	1,917,727	615,306	265,182	282,879	129,083	333,424	359,574	22,056
Nov-01	203,429	201,781	137,465	5,635	1,665,424	16,180	1,407,140	256,261	333,451	300,851	305,124	44,717	17,288	10,125
Dic-01	213,869	140,329	78,609	2,169	686,360	55,413	785,844	78,715	269,206	129,072	148,298	70,271	131,336	52,175
Ene-02	518,111	499,692	187,115	7,945	380,939	49,102	458,697	194,549	476,824	362,089	386,113	0	0	0
Feb-02	427,617	49,840	39,508	38,964	403,039	13,767	311,867	169,668	433,284	257,853	246,123	0	0	0
Mar-02	455,411	841,602	459,496	4,202	774,112	22,740	552,034	10,736	1,014,429	515,635	582,998	11,950	143,214	7,546
Abr-02	744,609	616,065	402,698	2,336	450,262	94,197	102	0	820,362	602,130	585,388	0	0	0
May-02	1,003,333	916,359	699,369	0	284,546	16,249	209,665	0	683,033	307,435	357,189	203,483	26,729	0
Jun-02	853,119	603,566	573,896	2,716	533,087	86,389	1,198,766	0	308,047	127,342	369,676	37,489	87,619	0
Jul-02	610,870	396,622	303,117	47,793	0	0	0	98,327	974,627	561,628	578,108	79,939	119,000	10,833
Ago-02	1,047,578	632,019	611,989	67,417	166,911	5,817	44,402	311,883	973,404	717,719	720,057	16,533	8,267	0
Sep-02	651,709	468,111	365,267	23,854	115,840	69,130	303,327	285,819	703,414	512,398	497,590	72,083	110,733	35,143
Oct-02	331,033	239,059	132,342	15,989	1,645,544	103,828	2,366,618	772,240	314,957	351,596	180,236	399,093	430,376	26,433
Nov-02	252,607	252,552	168,631	6,885	2,050,736	20,289	1,739,319	321,523	412,216	374,205	379,087	53,792	20,795	12,195
Dic-02	265,782	175,617	96,653	2,658	846,759	69,461	935,384	98,726	333,227	180,648	184,391	84,926	158,720	99,426



CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.4 β = 0.1 γ = 0.9														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	348,616	40,397	32,358	30,547	338,987	11,317	261,696	141,703	353,713	210,882	200,935	0	0	0
Mar-01	370,557	677,794	378,699	3,493	643,723	18,436	458,606	8,783	629,166	419,695	474,489	10,214	122,355	6,526
Abr-01	604,626	494,153	332,626	1,944	372,873	76,714	84	0	670,327	468,337	475,195	0	0	0
May-01	813,172	732,410	677,564	0	234,404	12,992	171,838	0	720,704	248,655	289,315	173,846	22,834	0
Jun-01	690,261	402,344	473,196	2,255	437,090	68,563	976,419	0	261,014	102,779	298,875	31,895	74,547	0
Jul-01	493,501	316,652	249,355	39,543	0	0	0	78,164	792,765	462,479	466,656	67,657	100,725	9,150
Ago-01	845,154	504,414	502,086	65,591	136,084	4,627	35,995	247,503	790,306	577,588	580,456	13,914	6,958	0
Sep-01	525,173	373,564	298,894	19,606	94,186	54,975	246,349	226,834	570,124	411,939	400,674	60,328	92,686	29,322
Oct-01	286,492	190,787	108,009	13,100	1,334,919	82,587	1,910,807	812,979	254,868	282,434	128,904	332,262	355,346	21,938
Nov-01	203,179	201,585	137,294	6,625	1,660,374	16,144	1,402,259	285,334	333,086	300,396	304,717	44,586	17,231	10,073
Dic-01	213,614	140,203	78,518	2,165	884,421	65,298	753,204	78,450	288,910	128,891	148,115	70,050	130,930	81,778
Ene-02	510,462	495,448	184,990	7,816	370,730	48,160	444,823	188,621	473,732	367,286	381,788	0	0	0
Feb-02	428,978	49,972	39,646	37,162	406,469	13,851	314,870	171,323	434,898	256,928	247,031	0	0	0
Mar-02	456,301	842,873	460,427	4,215	777,902	22,819	555,101	10,795	1,016,355	516,866	684,229	12,017	143,999	7,609
Abr-02	746,366	616,548	403,125	2,339	451,415	94,366	102	0	821,164	602,879	588,032	0	0	0
May-02	1,003,761	915,658	699,684	0	284,855	16,261	209,922	0	883,401	307,595	357,364	203,740	26,782	0
Jun-02	853,175	503,592	573,938	2,718	532,782	86,398	1,197,021	0	308,067	127,392	369,702	37,497	87,638	0
Jul-02	610,781	396,576	303,073	47,783	0	0	0	98,284	974,491	561,427	578,016	79,907	118,954	10,827
Ago-02	1,047,304	631,889	611,827	67,391	166,503	5,814	44,369	311,645	973,159	717,490	719,854	16,521	8,261	0
Sep-02	651,503	467,995	365,169	23,843	116,749	69,090	303,056	285,557	703,200	512,200	497,420	72,018	110,636	35,095
Oct-02	330,923	238,997	132,296	15,981	1,644,179	103,766	2,364,384	771,494	314,855	351,453	160,178	398,716	429,976	26,395
Nov-02	252,525	252,467	168,674	6,852	2,049,061	20,277	1,737,703	321,218	412,084	374,055	378,953	53,742	20,776	12,178
Dic-02	265,700	175,575	96,622	2,657	846,106	69,423	934,685	98,638	333,128	160,587	184,329	84,851	158,582	99,291

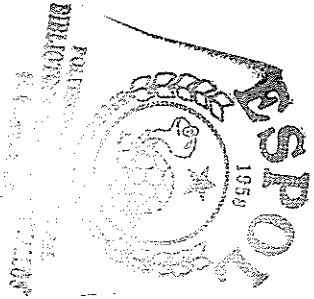
CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.4 β = 0.4 γ = 0.1														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	343,260	39,912	31,847	29,861	324,492	11,012	250,761	135,666	348,451	206,939	197,603	0	0	0
Mar-01	367,218	673,701	374,619	3,440	629,101	18,171	447,095	8,575	821,425	415,181	469,599	9,926	118,951	6,264
Abr-01	601,295	493,500	329,216	1,917	366,688	75,315	82	0	665,531	465,417	472,468	0	0	0
May-01	810,123	734,230	670,474	0	231,280	13,012	169,882	0	716,698	247,864	288,263	168,521	22,138	0
Jun-01	686,205	404,535	466,006	2,210	431,373	69,316	967,050	0	249,100	102,619	295,105	30,712	71,766	0
Jul-01	492,201	319,042	244,905	38,626	0	0	0	78,986	788,067	462,200	465,705	64,783	98,399	8,761
Ago-01	843,782	509,293	492,695	64,235	134,269	4,686	35,717	251,079	783,874	578,028	579,935	13,274	6,638	0
Sep-01	524,400	377,375	293,126	19,116	92,961	55,731	243,585	230,327	565,417	412,394	400,405	57,492	88,322	28,004
Oct-01	286,058	192,646	105,940	12,778	1,318,206	83,698	1,898,012	822,407	252,757	282,711	128,800	317,050	341,906	20,991
Nov-01	202,814	203,364	134,793	6,495	1,641,094	16,345	1,393,746	259,039	330,413	300,610	304,414	42,566	16,494	9,673
Dic-01	213,221	141,271	77,211	2,120	877,329	65,912	749,216	79,485	286,906	128,952	147,963	67,369	125,905	78,903
Ene-02	517,740	504,834	185,309	7,857	382,087	49,999	462,823	199,471	477,916	364,365	367,658	0	0	0
Feb-02	425,424	49,978	38,872	36,217	396,857	13,799	307,950	169,791	429,387	256,878	245,005	0	0	0
Mar-02	463,983	844,221	453,736	4,136	765,526	22,816	547,325	10,764	1,007,733	514,649	681,346	11,808	139,111	7,328
Abr-02	743,605	618,416	399,024	2,308	446,869	94,601	101	0	816,900	601,891	584,780	0	0	0
May-02	1,003,833	919,705	695,215	0	283,270	16,335	209,119	0	881,370	307,635	357,469	200,058	26,279	0
Jun-02	854,987	508,431	572,071	2,704	531,654	86,924	1,196,353	0	308,101	127,703	370,553	37,025	86,534	0
Jul-02	613,002	399,172	302,820	47,669	0	0	0	99,002	976,399	563,796	580,222	79,233	117,950	10,738
Ago-02	1,053,035	636,893	612,666	67,416	167,269	5,864	44,545	314,344	977,101	721,771	723,900	16,442	8,221	0
Sep-02	655,395	471,758	366,173	23,882	116,194	69,685	304,536	288,098	706,642	515,467	500,456	71,829	110,344	35,013
Oct-02	332,806	240,775	132,682	16,013	1,650,860	104,607	2,376,229	778,025	316,315	353,599	161,110	398,136	429,345	26,369
Nov-02	253,794	254,132	169,017	6,895	2,058,910	20,423	1,745,884	323,685	413,779	376,083	380,906	53,695	20,758	12,175
Dic-02	266,829	176,543	96,831	2,661	848,975	69,868	938,471	99,305	334,278	161,329	185,135	84,800	158,482	99,307

CALCULOS PRONOSTICOS CON METODO WINTERS $\alpha = 0.4$ $\beta = 0.4$ $\gamma = 0.4$														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	345,250	40,093	32,037	30,115	329,062	11,124	264,749	137,873	350,406	208,401	198,840	0	0	0
Mar-01	368,130	675,007	376,571	3,452	632,897	18,251	450,163	8,635	823,398	416,438	471,169	9,992	119,732	6,327
Abr-01	601,396	493,558	329,275	1,917	566,843	76,336	82	0	685,640	485,513	472,551	0	0	0
May-01	809,149	733,533	559,780	0	230,609	12,984	169,301	0	714,889	247,600	287,886	167,981	22,088	0
Jun-01	686,970	403,985	466,150	2,204	429,489	69,095	962,266	0	248,666	102,394	297,527	30,562	71,441	0
Jul-01	491,293	318,584	244,440	38,521	0	0	0	78,576	784,663	451,183	464,777	64,423	95,917	8,994
Ago-01	842,463	508,674	491,899	54,109	133,753	4,673	35,582	249,976	782,685	576,927	576,956	13,216	6,609	0
Sep-01	623,798	377,039	292,776	19,083	92,697	55,619	242,806	229,686	564,785	411,817	399,908	67,305	88,040	27,667
Oct-01	265,866	192,536	105,861	12,785	1,315,863	83,592	1,894,205	621,167	252,579	282,463	128,700	316,401	341,218	20,926
Nov-01	202,743	203,298	134,744	5,492	1,639,661	16,335	1,392,375	268,785	330,300	300,481	304,298	42,622	16,477	9,859
Dic-01	213,204	141,262	77,204	2,120	677,190	66,904	749,044	79,467	266,886	128,940	147,940	67,353	125,875	78,875
Ene-02	514,721	502,550	184,186	7,789	376,650	49,491	455,434	196,270	475,206	381,784	365,346	0	0	0
Feb-02	426,595	80,112	39,012	36,403	400,230	13,883	310,902	171,425	430,831	257,959	245,919	0	0	0
Mar-02	456,113	846,878	454,931	4,162	770,295	22,917	851,173	10,840	1,010,217	516,136	582,937	11,691	140,088	7,407
Abr-02	744,780	619,173	399,680	2,313	448,606	94,882	101	0	818,166	603,049	585,778	0	0	0
May-02	1,004,605	920,253	695,771	0	283,806	16,357	209,586	0	882,030	308,123	357,756	200,493	26,335	0
Jun-02	855,117	506,500	572,176	2,705	631,883	86,051	1,196,935	0	308,154	127,730	370,623	37,043	88,676	0
Jul-02	612,882	399,112	302,769	47,855	0	0	0	98,946	976,213	563,682	580,099	79,189	117,886	10,729
Ago-02	1,052,639	636,707	612,626	67,378	167,114	6,860	44,498	314,013	976,743	721,440	723,606	16,426	8,213	0
Sep-02	655,120	471,604	365,014	23,887	116,074	69,637	304,181	287,760	706,254	515,224	500,231	71,744	110,216	34,950
Oct-02	332,881	240,705	132,631	16,004	1,649,332	104,538	2,373,748	777,207	316,199	353,437	161,046	397,716	428,897	26,327
Nov-02	253,721	254,075	168,967	6,892	2,055,447	20,413	1,744,462	323,424	413,683	376,961	380,787	53,662	20,741	12,160
Dic-02	266,776	176,517	96,812	2,660	848,576	69,832	937,973	99,252	334,216	161,292	186,096	84,754	158,398	99,226

CALCULOS PRONOSTICOS CON METODO WINTERS $\alpha = 0.4$ $\beta = 0.4$ $\gamma = 0.9$														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	348,816	40,397	32,356	30,547	336,967	11,317	261,696	141,703	353,713	210,882	200,935	0	0	0
Mar-01	369,672	677,208	377,185	3,473	639,465	18,388	455,467	8,739	826,734	418,570	473,293	10,108	121,094	6,439
Abr-01	601,663	493,858	329,376	1,918	567,113	76,370	82	0	685,925	485,676	472,693	0	0	0
May-01	807,601	732,358	558,604	0	229,448	12,936	168,327	0	713,468	246,882	287,254	167,041	21,947	0
Jun-01	684,879	403,006	463,702	2,195	426,230	68,717	953,929	0	247,937	102,013	296,547	30,391	70,842	0
Jul-01	489,758	317,810	243,653	38,342	0	0	0	77,893	782,288	449,467	463,205	63,847	95,077	8,574
Ago-01	840,232	507,631	490,551	53,894	132,861	4,651	36,292	248,062	780,674	575,058	577,297	13,114	6,559	0
Sep-01	622,779	376,472	292,184	19,027	92,242	55,427	241,463	228,300	563,717	410,838	399,066	66,980	87,550	27,623
Oct-01	265,542	192,358	105,727	12,741	1,311,812	83,412	1,887,592	618,986	252,280	282,042	128,631	315,268	340,021	20,811
Nov-01	202,622	203,205	134,660	5,487	1,637,184	16,318	1,389,992	268,344	330,109	300,262	304,102	42,547	16,449	9,832
Dic-01	213,174	141,247	77,193	2,120	676,951	66,891	748,746	79,436	266,849	128,918	147,917	67,325	125,824	78,825
Ene-02	509,696	498,749	182,316	7,675	367,640	48,647	443,151	190,955	470,693	357,487	361,494	0	0	0
Feb-02	429,383	80,337	39,249	36,722	406,063	14,025	361,605	174,261	433,273	259,793	247,468	0	0	0
Mar-02	467,059	846,670	456,955	4,178	778,545	23,090	672,458	10,972	1,014,417	516,830	585,631	11,835	141,789	7,546
Abr-02	746,766	620,449	400,790	2,323	451,611	95,310	123	0	820,279	605,014	587,468	0	0	0
May-02	1,005,911	921,177	696,712	0	284,734	16,394	247,135	0	883,145	308,613	358,259	201,261	26,432	0
Jun-02	855,370	506,616	572,351	2,706	632,279	86,997	1,350,020	0	308,242	127,776	370,742	37,076	88,849	0
Jul-02	612,678	399,009	302,654	47,631	0	0	0	98,864	976,896	563,433	579,890	79,113	117,774	10,713
Ago-02	1,051,969	636,394	612,220	67,313	166,846	5,853	46,054	313,438	976,138	720,878	723,107	16,394	8,198	0
Sep-02	654,655	471,346	365,743	23,842	115,866	69,649	305,698	287,173	705,766	514,776	499,847	71,695	109,992	34,839
Oct-02	332,470	240,586	132,643	15,989	1,646,690	104,420	2,342,445	775,789	316,004	353,163	160,934	396,977	428,117	26,252
Nov-02	253,597	253,979	168,881	6,887	2,052,918	20,395	1,706,887	322,970	413,466	376,726	380,588	53,575	20,712	12,133
Dic-02	266,692	176,473	96,780	2,659	847,886	69,792	916,627	99,180	334,111	161,228	185,032	84,674	158,251	99,083

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.4 β = 0.9 γ = 0.1														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	343,260	39,912	31,847	29,861	324,492	11,012	250,751	135,666	348,451	208,939	197,603	0	0	0
Mar-01	366,885	674,336	373,264	3,422	626,732	18,187	445,687	8,578	819,798	414,859	469,459	9,831	117,822	6,198
Abr-01	599,976	494,836	326,188	1,893	363,432	76,627	82	0	662,293	484,655	471,496	0	0	0
May-01	807,678	737,472	562,576	0	228,375	13,076	168,226	0	710,605	247,394	287,478	162,717	21,377	0
Jun-01	686,081	408,657	458,793	2,166	426,667	69,748	957,868	0	247,173	102,449	297,309	29,552	69,075	0
Jul-01	490,992	320,606	241,563	37,951	0	0	0	79,467	780,863	451,732	484,769	62,644	93,268	8,479
Ago-01	843,745	511,866	488,790	53,675	133,513	4,714	35,602	262,642	781,669	578,625	580,120	13,002	6,502	0
Sep-01	624,676	378,464	292,163	19,038	92,818	55,931	243,521	231,279	564,935	412,873	409,709	57,029	87,605	27,819
Oct-01	266,096	192,666	105,936	12,785	1,319,549	83,748	1,900,447	623,216	282,782	282,812	128,832	317,593	342,473	21,060
Nov-01	202,737	202,958	135,039	5,512	1,644,757	16,318	1,396,215	258,771	330,562	300,485	304,298	42,982	16,616	9,757
Dic-01	213,093	140,882	77,410	2,129	678,988	56,761	750,445	79,305	267,050	128,838	147,853	67,989	127,081	79,688
Ene-02	517,511	503,607	185,783	7,886	382,866	49,871	483,405	198,999	478,233	364,083	367,458	0	0	0
Feb-02	426,485	49,910	38,982	38,343	397,842	13,762	308,660	169,663	429,800	256,879	246,035	0	0	0
Mar-02	454,482	844,609	464,792	4,146	767,269	22,823	548,406	10,769	1,009,337	515,087	582,000	11,864	139,791	7,367
Abr-02	745,430	619,826	400,152	2,314	447,887	94,791	101	0	819,013	603,290	588,183	0	0	0
May-02	1,007,376	923,150	697,575	0	283,982	16,389	209,613	0	884,420	308,974	358,691	200,335	26,316	0
Jun-02	856,310	508,595	574,109	2,712	533,083	87,269	1,199,453	0	309,260	128,184	371,973	37,084	86,631	0
Jul-02	615,139	400,594	303,788	47,793	0	0	0	99,306	979,658	565,716	582,215	79,327	118,093	10,740
Ago-02	1,057,090	639,511	615,053	67,633	167,787	5,886	44,682	315,428	980,764	724,510	726,667	16,478	8,240	0
Sep-02	656,809	472,832	366,699	23,929	116,422	69,843	305,145	288,727	708,027	516,607	501,642	71,951	110,532	35,073
Oct-02	332,776	240,782	132,659	16,014	1,651,285	104,619	2,377,102	778,334	316,279	353,597	161,102	398,326	429,539	26,397
Nov-02	253,350	253,668	168,717	6,885	2,054,623	20,393	1,744,180	323,358	413,051	375,470	380,260	53,659	20,743	12,177
Dic-02	266,202	176,113	96,603	2,656	847,518	69,711	938,989	99,143	333,491	160,985	184,709	84,689	158,269	99,257

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.4 β = 0.9 γ = 0.4														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	345,250	40,093	32,037	30,115	329,082	11,124	254,749	137,873	350,408	208,401	198,840	0	0	0
Mar-01	367,350	675,041	373,783	3,429	628,786	18,230	447,349	8,610	820,869	415,540	470,143	9,867	118,248	6,232
Abr-01	598,952	494,175	325,620	1,888	361,923	75,298	81	0	661,201	483,644	470,625	0	0	0
May-01	805,365	736,830	560,914	0	226,772	13,011	166,890	0	708,833	246,531	286,589	161,419	21,209	0
Jun-01	684,368	405,871	457,602	2,157	423,046	69,440	951,007	0	246,573	102,137	296,508	29,342	68,594	0
Jul-01	490,313	320,268	241,214	37,872	0	0	0	79,161	779,810	450,971	484,075	62,394	92,894	8,428
Ago-01	843,544	511,775	488,667	53,655	133,433	4,712	35,578	262,476	781,386	578,467	579,970	12,993	6,497	0
Sep-01	624,940	378,613	292,316	19,053	92,931	55,981	243,563	231,606	565,212	413,127	400,928	57,110	87,728	27,879
Oct-01	266,297	192,761	106,019	12,800	1,322,003	83,869	1,904,437	624,531	282,968	283,072	128,938	318,273	343,192	21,127
Nov-01	202,865	203,057	135,126	5,517	1,647,300	16,336	1,398,652	259,226	330,764	300,695	304,504	43,058	16,644	9,783
Dic-01	213,183	140,918	77,436	2,130	679,536	56,793	751,129	79,378	267,145	128,890	147,905	68,052	127,170	79,798
Ene-02	514,465	501,308	184,648	7,817	377,390	49,360	455,940	195,776	476,496	361,479	365,124	0	0	0
Feb-02	427,318	50,076	39,137	36,576	402,046	13,886	312,240	171,699	431,600	258,226	246,175	0	0	0
Mar-02	455,809	846,419	466,171	4,166	772,773	22,940	552,846	10,857	1,012,203	516,918	583,835	11,780	140,918	7,457
Abr-02	746,222	620,335	400,694	2,318	449,057	94,967	102	0	819,859	604,071	586,856	0	0	0
May-02	1,008,982	922,872	697,292	0	283,709	16,378	209,386	0	884,084	308,727	358,540	200,114	26,288	0
Jun-02	857,379	508,166	573,462	2,707	531,658	87,093	1,195,833	0	308,933	128,016	371,637	36,950	86,369	0
Jul-02	614,466	400,355	303,422	47,715	0	0	0	99,002	978,616	564,962	581,527	79,081	117,734	10,690
Ago-02	1,056,349	639,163	614,604	67,563	167,498	5,879	44,594	314,809	980,095	723,691	726,116	16,446	8,224	0
Sep-02	656,661	472,750	366,813	23,921	116,357	69,815	304,954	288,545	707,872	516,466	501,420	71,905	110,463	35,039
Oct-02	332,820	240,778	132,678	16,017	1,651,825	104,643	2,377,979	778,623	316,320	353,655	161,125	398,475	429,697	26,412
Nov-02	253,424	253,726	168,768	6,888	2,056,106	20,404	1,745,601	323,623	413,169	375,604	380,360	53,703	20,760	12,192
Dic-02	266,277	176,151	96,631	2,657	848,103	69,745	937,720	99,221	333,582	161,023	184,765	84,766	158,392	99,375

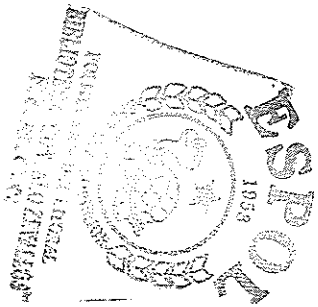


CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.4 β = 0.9 γ = 0.9														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	348,616	40,397	32,358	30,647	336,867	11,317	261,696	141,703	353,713	210,882	200,935	0	0	0
Mar-01	368,196	676,232	374,661	3,441	632,369	18,304	450,237	8,566	822,681	416,696	471,300	9,930	118,991	6,293
Abr-01	597,216	493,057	324,656	1,880	359,314	74,905	81	0	659,353	481,930	469,151	0	0	0
May-01	801,455	733,068	558,101	0	223,999	12,898	164,566	0	705,298	245,066	285,084	159,155	20,918	0
Jun-01	681,471	404,547	455,585	2,144	418,611	68,919	939,435	0	245,558	101,609	295,150	28,977	67,757	0
Jul-01	469,164	319,689	240,623	37,737	0	0	0	76,830	778,030	449,681	462,899	81,980	92,260	8,338
Ago-01	843,202	511,617	488,458	53,622	133,295	4,709	35,537	252,187	781,077	578,172	579,716	12,977	6,489	0
Sep-01	626,388	378,863	292,676	19,077	93,131	66,066	244,457	232,174	865,882	413,559	401,299	67,253	87,943	27,985
Oct-01	266,837	192,971	106,160	12,824	1,326,248	84,049	1,911,370	626,814	263,282	283,514	129,116	319,457	344,444	21,248
Nov-01	203,080	203,223	135,277	5,526	1,651,699	16,366	1,402,886	260,013	331,106	301,085	304,864	43,191	16,695	9,830
Dic-01	213,281	140,978	77,481	2,132	680,484	65,847	752,316	76,503	287,289	126,977	147,994	68,182	127,377	79,995
Ene-02	509,395	497,479	182,758	7,702	368,280	49,509	443,529	190,422	470,939	357,145	381,240	0	0	0
Feb-02	430,419	50,357	39,432	36,973	409,319	14,064	318,834	175,233	434,644	260,512	248,105	0	0	0
Mar-02	458,084	849,640	468,507	4,197	782,292	23,139	560,660	11,009	1,017,049	520,025	586,943	11,927	142,882	7,618
Abr-02	747,562	621,195	401,342	2,324	461,082	95,269	102	0	821,290	605,395	587,995	0	0	0
May-02	1,006,318	922,402	696,814	0	283,237	16,358	208,991	0	883,617	308,478	358,285	199,728	26,238	0
Jun-02	855,804	607,448	572,366	2,700	529,194	86,810	1,189,544	0	308,382	127,736	370,799	36,762	85,914	0
Jul-02	613,328	399,783	302,838	47,582	0	0	0	98,476	976,854	563,683	580,362	78,852	117,108	10,601
Ago-02	1,055,095	638,578	613,845	67,442	168,994	5,867	44,443	313,734	978,964	722,840	726,184	16,389	8,196	0
Sep-02	656,410	472,611	366,668	23,907	116,245	69,768	304,621	288,229	707,610	516,225	501,213	71,825	110,342	34,979
Oct-02	332,895	240,818	132,709	16,023	1,662,758	104,684	2,379,603	779,123	316,389	353,762	161,164	398,736	429,973	26,436
Nov-02	253,550	253,623	168,865	6,893	2,058,671	20,422	1,748,071	324,083	413,368	376,831	380,584	53,781	20,769	12,219
Dic-02	266,403	176,216	96,679	2,659	849,116	69,804	938,990	99,356	333,736	161,116	184,860	84,873	158,607	99,585

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.9 β = 0.1 γ = 0.1														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	343,260	39,912	31,847	29,861	324,492	11,012	254,296	135,966	348,451	206,939	197,603	0	0	0
Mar-01	366,469	675,064	371,707	3,403	624,007	18,205	452,260	8,580	817,926	414,487	468,954	9,722	116,524	6,122
Abr-01	600,185	495,012	326,203	1,894	363,750	75,583	83	0	662,443	484,687	471,577	0	0	0
May-01	809,234	736,125	560,670	0	230,122	13,055	172,424	0	713,426	247,784	288,020	165,949	21,799	0
Jun-01	686,087	405,056	464,633	2,204	430,885	69,448	984,364	0	248,848	102,650	298,111	30,564	71,436	0
Jul-01	492,629	316,980	245,336	38,732	0	0	0	79,050	788,936	452,524	466,041	65,116	96,935	8,823
Ago-01	847,384	510,123	496,726	54,772	135,271	4,892	36,412	251,420	788,384	580,236	582,337	13,486	6,743	0
Sep-01	624,139	375,658	294,729	19,271	93,440	66,478	248,592	229,484	566,389	411,963	400,148	68,516	89,690	28,540
Oct-01	266,069	191,761	106,682	12,904	1,328,272	83,292	1,938,631	619,744	263,420	282,617	128,779	323,649	348,904	21,439
Nov-01	202,984	202,672	135,866	5,553	1,651,989	16,274	1,423,741	257,993	331,561	300,616	304,594	43,564	16,841	9,860
Dic-01	213,604	140,843	77,630	2,142	681,718	65,706	765,089	79,201	287,921	129,018	148,111	68,705	126,402	80,460
Ene-02	518,524	503,670	186,685	7,931	384,311	49,851	474,953	198,869	479,685	364,642	388,127	0	0	0
Feb-02	426,245	49,903	39,140	36,562	399,877	13,780	481,834	169,730	431,024	257,286	245,468	0	0	0
Mar-02	455,087	844,232	456,720	4,166	768,719	22,792	559,688	10,742	1,011,723	516,424	582,618	11,733	140,628	7,391
Abr-02	745,824	619,042	401,525	2,323	448,803	94,615	103	0	820,309	603,311	586,386	0	0	0
May-02	1,006,339	920,521	698,766	0	284,361	16,340	213,828	0	884,411	308,467	358,294	201,735	26,500	0
Jun-02	856,219	606,497	574,106	2,715	533,185	86,909	1,221,878	0	308,790	127,851	371,058	37,276	87,122	0
Jul-02	613,197	398,846	303,437	47,797	0	0	0	98,912	977,336	563,882	580,372	79,842	118,559	10,794
Ago-02	1,055,488	637,826	615,164	67,697	167,783	5,870	45,268	314,553	979,916	723,279	725,534	16,538	8,269	0
Sep-02	653,130	469,685	365,381	23,849	115,988	69,402	309,248	287,055	704,434	513,683	498,728	71,912	110,468	35,081
Oct-02	331,971	239,762	132,383	15,988	1,647,645	104,186	2,412,883	775,217	315,370	352,376	160,560	398,404	429,621	26,404
Nov-02	253,112	253,263	168,740	6,887	2,053,737	20,356	1,773,003	322,688	412,827	375,045	379,877	53,736	20,773	12,199
Dic-02	266,306	176,083	96,734	2,660	848,050	69,673	953,190	99,055	333,742	160,998	184,767	84,878	158,626	99,415

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.9 β = 0.1 γ = 0.4														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	345,250	40,093	32,037	30,115	329,062	11,124	254,749	137,573	350,408	208,401	198,840	0	0	0
Mar-01	366,474	676,081	371,726	3,403	624,080	18,206	444,124	8,581	817,961	414,607	468,974	9,724	116,542	6,123
Abr-01	599,844	494,809	326,032	1,592	363,297	75,612	82	0	662,113	464,550	471,413	0	0	0
May-01	808,815	735,824	565,373	0	229,834	13,043	169,063	0	713,071	247,627	287,859	165,720	21,770	0
Jun-01	687,776	404,908	464,615	2,203	430,403	69,391	985,570	0	248,737	102,592	297,961	30,526	71,349	0
Jul-01	492,328	316,877	245,235	38,709	0	0	0	78,958	786,626	452,298	465,635	65,044	96,830	8,808
Ago-01	847,060	509,979	496,545	64,743	136,163	4,689	35,907	251,162	798,112	579,992	582,111	13,473	6,737	0
Sep-01	523,971	375,664	294,633	19,252	93,366	55,447	244,253	229,256	668,215	411,803	400,010	58,465	89,614	28,503
Oct-01	266,995	191,718	106,652	12,899	1,325,368	83,250	1,904,539	619,248	263,351	282,420	128,740	323,302	348,642	21,414
Nov-01	202,933	202,533	135,831	5,551	1,650,973	16,267	1,398,187	257,810	331,481	300,524	304,512	43,534	16,830	9,870
Dic-01	213,457	140,819	77,612	2,142	681,352	55,687	752,136	79,152	267,864	126,993	148,078	68,664	128,326	80,368
Ene-02	616,365	501,261	185,500	7,859	378,602	49,320	456,941	195,521	476,835	381,933	365,699	0	0	0
Feb-02	426,641	50,121	39,368	36,867	405,175	13,916	314,587	172,391	433,376	259,047	248,956	0	0	0
Mar-02	485,279	844,507	456,921	4,166	769,520	22,809	549,429	10,765	1,012,139	516,689	582,881	11,747	140,793	7,404
Abr-02	745,733	616,982	401,476	2,323	448,670	94,594	101	0	820,212	603,221	586,309	0	0	0
May-02	1,006,177	920,404	698,650	0	284,249	16,335	209,642	0	884,272	308,406	358,231	201,645	26,488	0
Jun-02	856,091	506,436	574,019	2,715	532,972	86,886	1,198,463	0	308,746	127,828	370,998	37,261	87,087	0
Jul-02	613,116	398,807	303,396	47,788	0	0	0	98,675	977,211	563,771	580,289	79,813	118,516	10,788
Ago-02	1,055,366	637,768	615,091	67,685	167,716	5,888	44,639	314,450	979,807	723,178	725,444	16,532	8,267	0
Sep-02	653,083	469,647	365,343	23,845	116,959	69,389	303,838	286,972	704,364	513,619	498,673	71,892	110,438	35,066
Oct-02	331,641	239,736	132,371	15,986	1,647,281	104,170	2,370,486	775,019	316,342	352,337	160,844	398,304	429,515	26,394
Nov-02	253,092	253,247	168,727	6,887	2,053,336	20,352	1,742,371	322,615	412,795	375,009	379,644	53,724	20,769	12,185
Dic-02	266,287	176,073	96,727	2,659	847,904	69,664	937,028	99,035	333,719	160,994	184,763	84,861	158,596	99,386

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.9 β = 0.1 γ = 0.9														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	348,616	40,397	32,358	30,547	336,987	11,317	261,698	141,703	353,713	210,682	200,935	0	0	0
Mar-01	366,499	675,110	371,758	3,403	624,208	18,207	444,222	8,583	818,021	414,541	469,008	9,726	116,573	6,126
Abr-01	599,318	494,467	325,744	1,590	362,513	75,392	82	0	661,556	464,059	470,968	0	0	0
May-01	808,109	735,318	565,871	0	229,338	13,022	168,645	0	712,470	247,361	287,686	165,319	21,718	0
Jun-01	687,240	404,658	464,246	2,200	429,571	69,292	983,436	0	248,549	102,493	297,709	30,460	71,197	0
Jul-01	491,987	316,704	245,062	38,670	0	0	0	78,798	786,102	451,914	465,486	64,919	96,647	8,782
Ago-01	846,546	509,736	496,239	64,695	134,950	4,683	35,848	250,716	797,651	579,581	581,729	13,450	6,726	0
Sep-01	523,688	375,405	294,472	19,247	93,243	55,393	243,881	228,895	665,921	411,631	399,777	58,377	89,481	28,437
Oct-01	266,868	191,647	106,600	12,890	1,323,604	83,179	1,901,976	618,367	263,235	282,255	128,674	322,871	348,187	21,371
Nov-01	202,848	202,466	135,773	5,548	1,649,382	16,265	1,397,524	257,494	331,347	300,389	304,373	43,483	16,810	9,852
Dic-01	213,378	140,778	77,783	2,141	680,725	55,649	751,346	79,066	267,768	126,924	148,017	68,592	128,195	80,259
Ene-02	510,079	497,302	183,527	7,739	389,105	48,437	444,016	189,961	472,088	367,425	361,667	0	0	0
Feb-02	432,595	60,486	39,764	37,387	414,666	14,149	322,948	177,010	437,358	262,935	249,480	0	0	0
Mar-02	455,605	844,972	457,261	4,173	770,905	22,837	550,550	10,777	1,012,843	516,139	583,331	11,772	141,080	7,426
Abr-02	745,578	618,881	401,390	2,322	448,439	94,559	101	0	820,048	603,066	586,177	0	0	0
May-02	1,005,901	920,208	698,453	0	284,055	16,327	209,479	0	884,036	308,303	358,125	201,488	26,468	0
Jun-02	855,876	506,336	573,870	2,714	532,638	86,847	1,197,609	0	308,671	127,789	370,897	37,234	87,028	0
Jul-02	612,980	398,739	303,327	47,772	0	0	0	98,611	977,001	563,617	580,149	79,803	118,442	10,777
Ago-02	1,055,160	637,671	614,967	67,666	167,634	5,866	44,615	314,272	979,622	723,005	725,290	16,523	8,262	0
Sep-02	652,950	469,584	365,278	23,839	116,909	69,367	303,688	286,828	704,246	513,510	498,580	71,856	110,364	35,039
Oct-02	331,590	239,706	132,350	15,982	1,646,651	104,141	2,369,455	774,675	316,286	352,271	160,817	398,129	429,331	26,376
Nov-02	253,058	253,220	168,703	6,885	2,052,643	20,347	1,741,702	322,489	412,741	374,947	379,788	53,703	20,761	12,178
Dic-02	266,255	176,057	96,715	2,659	847,651	69,649	936,710	99,001	333,680	160,960	184,729	84,832	158,543	99,334



CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.9 β = 0.4 γ = 0.1														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	343,260	39,912	31,847	29,861	324,492	11,012	250,751	135,666	348,451	206,939	197,603	0	0	0
Mar-01	366,983	675,920	369,878	3,379	620,809	18,226	442,168	8,584	816,728	414,052	468,360	9,694	116,000	6,032
Abr-01	599,083	496,246	323,552	1,873	361,058	75,790	81	0	659,696	484,323	470,910	0	0	0
May-01	807,709	738,422	561,388	0	228,272	13,103	168,298	0	710,090	247,525	287,547	162,165	21,301	0
Jun-01	686,842	406,388	460,419	2,177	427,479	69,723	981,305	0	247,680	102,557	297,649	29,862	69,795	0
Jul-01	491,692	320,002	243,104	36,278	0	0	0	79,350	783,426	452,187	465,379	63,693	94,816	8,630
Ago-01	847,940	512,628	493,477	54,275	134,649	4,717	35,821	252,677	786,634	580,887	582,669	13,232	6,617	0
Sep-01	623,161	376,500	292,335	19,073	92,832	55,642	243,337	230,153	964,012	411,626	399,503	57,425	88,214	28,016
Oct-01	265,648	192,091	105,872	12,782	1,318,242	83,493	1,697,738	621,303	252,391	282,172	128,557	318,061	342,981	21,083
Nov-01	202,660	202,917	134,964	5,507	1,643,242	16,312	1,394,888	258,605	330,410	300,334	304,172	42,908	16,587	9,734
Dic-01	213,234	141,079	77,381	2,127	678,694	55,830	760,165	79,378	267,135	128,930	147,951	67,791	126,892	79,410
Ene-02	617,993	504,468	185,748	7,880	382,778	49,952	463,420	199,277	478,482	364,455	367,809	0	0	0
Feb-02	426,000	49,983	38,978	36,391	463,639	13,814	309,493	170,270	430,220	257,307	245,388	0	0	0
Mar-02	455,147	846,099	455,352	4,148	857,738	22,847	547,921	10,787	1,010,676	515,872	582,761	11,630	139,389	7,324
Abr-02	746,601	620,836	400,836	2,317	479,656	94,900	101	0	820,314	604,198	587,039	0	0	0
May-02	1,007,927	923,470	698,166	0	302,254	16,395	209,772	0	885,000	309,034	358,885	200,619	26,354	0
Jun-02	857,745	508,120	573,895	2,712	554,131	87,201	1,199,728	0	309,093	128,110	371,746	37,118	86,748	0
Jul-02	614,288	400,061	303,405	47,758	0	0	0	99,225	978,397	565,000	681,451	79,364	118,145	10,756
Ago-02	1,059,248	640,837	616,317	67,775	170,162	5,897	44,756	315,910	982,806	726,961	726,149	16,511	8,256	0
Sep-02	653,848	470,648	365,244	23,828	116,891	69,556	304,090	287,724	704,821	514,350	499,308	71,712	110,161	34,989
Oct-02	331,906	240,120	132,305	15,972	1,653,775	104,371	2,371,823	776,676	315,441	352,693	160,684	397,364	428,497	26,341
Nov-02	253,313	253,649	168,680	6,883	2,058,167	20,390	1,743,467	323,267	412,978	376,404	380,198	53,619	20,728	12,164
Dic-02	266,535	176,350	96,719	2,658	849,181	69,788	937,684	99,224	333,903	161,159	184,935	84,725	158,339	99,247

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.9 β = 0.4 γ = 0.4														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	346,260	40,093	32,037	30,115	329,052	11,124	254,749	137,673	350,406	208,401	198,840	0	0	0
Mar-01	365,434	675,127	369,311	3,372	618,544	18,177	440,336	8,547	814,547	413,285	467,602	9,655	114,538	6,995
Abr-01	598,096	495,810	323,033	1,869	359,603	75,569	81	0	658,643	483,350	470,072	0	0	0
May-01	806,860	737,818	560,779	0	227,683	13,079	167,807	0	709,366	247,208	287,220	161,879	21,240	0
Jun-01	686,426	406,197	460,130	2,175	426,844	69,649	959,691	0	247,534	102,481	297,455	29,811	69,679	0
Jul-01	491,626	319,918	243,019	36,259	0	0	0	79,275	783,169	451,981	465,209	63,632	94,728	8,618
Ago-01	847,482	512,554	493,382	54,260	134,485	4,715	35,803	252,546	786,492	580,785	582,552	13,225	6,613	0
Sep-01	623,107	376,469	292,304	19,070	92,809	55,632	243,267	230,088	963,956	411,474	399,459	57,408	88,188	28,004
Oct-01	265,693	192,083	105,866	12,781	1,318,056	83,484	1,697,437	621,203	252,377	282,152	128,549	318,010	342,926	21,078
Nov-01	202,664	202,912	134,960	5,507	1,643,115	16,311	1,394,765	258,582	330,400	300,322	304,161	42,904	16,586	9,733
Dic-01	213,230	141,077	77,380	2,127	678,665	55,828	760,128	79,374	267,130	128,927	147,948	67,787	126,886	79,404
Ene-02	614,922	502,148	184,803	7,811	377,260	49,436	455,896	196,028	475,723	361,829	365,456	0	0	0
Feb-02	429,141	50,269	39,277	36,790	466,007	13,992	315,799	173,759	433,304	259,615	247,339	0	0	0
Mar-02	455,231	846,219	455,439	4,149	787,176	22,854	548,199	10,772	1,010,855	515,788	582,866	11,636	139,460	7,330
Abr-02	746,171	620,858	400,896	2,315	447,537	94,804	101	0	819,855	603,683	586,674	0	0	0
May-02	1,007,488	923,159	697,850	0	283,914	16,382	209,618	0	884,625	308,870	358,716	200,372	26,322	0
Jun-02	857,522	508,018	573,740	2,711	532,840	87,161	1,198,860	0	309,015	128,070	371,642	37,087	86,683	0
Jul-02	614,205	400,015	303,358	47,748	0	0	0	99,184	978,257	564,899	681,359	79,331	118,097	10,749
Ago-02	1,059,182	640,707	616,269	67,769	168,042	5,896	44,746	315,839	982,726	726,890	726,085	16,508	8,254	0
Sep-02	653,818	470,629	365,227	23,827	115,985	69,553	304,052	287,687	704,790	514,322	499,284	71,703	110,147	34,982
Oct-02	331,898	240,116	132,302	15,971	1,647,366	104,366	2,371,658	776,622	315,433	352,682	160,679	397,336	428,467	26,338
Nov-02	253,309	253,647	168,678	6,882	2,053,752	20,390	1,743,400	323,255	412,972	376,398	380,192	53,617	20,727	12,164
Dic-02	266,533	176,349	96,718	2,658	848,174	69,787	937,644	99,222	333,900	161,157	184,933	84,723	158,336	99,244

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.9 β = 0.4 γ = 0.9

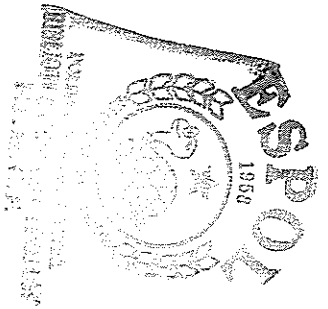
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	348,616	40,397	32,358	30,647	336,967	11,317	281,696	141,703	353,713	210,882	200,935	0	0	0
Mar-01	364,507	673,792	368,350	3,359	614,627	16,094	437,160	8,484	812,549	412,011	466,316	9,487	113,734	5,929
Abr-01	596,428	494,637	322,103	1,861	367,086	75,192	80	0	656,862	481,700	469,653	0	0	0
May-01	805,424	736,801	559,748	0	226,665	13,037	166,954	0	708,141	246,670	286,667	160,848	21,133	0
Jun-01	685,724	405,875	459,642	2,172	425,746	69,522	956,886	0	247,288	102,353	297,126	29,723	69,477	0
Jul-01	491,245	319,776	242,875	38,226	0	0	0	79,145	782,734	461,665	464,921	63,627	94,574	8,596
Ago-01	847,216	512,430	493,221	54,235	134,381	4,712	35,771	252,317	786,252	580,532	582,354	13,213	6,607	0
Sep-01	623,016	376,418	282,250	19,065	92,768	56,614	243,145	229,971	663,660	411,386	399,383	57,379	85,144	27,982
Oct-01	285,507	192,068	105,855	12,779	1,317,736	83,470	1,896,913	621,030	262,353	282,119	128,636	317,920	342,832	21,069
Nov-01	202,643	202,903	134,952	5,506	1,642,894	16,309	1,394,552	258,542	330,383	300,302	304,144	42,897	16,583	9,731
Dic-01	213,224	141,074	77,378	2,127	678,515	55,825	750,065	79,367	267,123	128,922	147,944	67,782	126,675	79,394
Ene-02	509,809	498,284	182,698	7,695	365,082	46,578	443,292	190,626	471,129	367,498	361,535	0	0	0
Feb-02	434,454	50,760	39,782	37,471	418,467	14,297	326,755	179,814	438,620	263,532	250,646	0	0	0
Mar-02	456,196	846,421	465,585	4,161	767,774	22,867	548,684	10,782	1,011,159	516,983	583,061	11,846	139,583	7,340
Abr-02	748,801	620,092	400,190	2,311	446,439	94,641	101	0	819,078	602,984	586,056	0	0	0
May-02	1,009,433	922,635	697,316	0	283,387	16,361	209,078	0	883,993	308,693	358,431	199,942	26,266	0
Jun-02	858,432	507,846	573,477	2,709	532,249	87,093	1,197,352	0	309,883	128,001	371,465	37,040	86,574	0
Jul-02	614,565	399,936	303,280	47,780	0	0	0	99,113	978,020	564,727	581,203	79,274	118,013	10,737
Ago-02	1,059,601	640,729	616,178	67,752	167,984	5,894	44,727	315,714	982,597	726,766	727,977	16,501	8,251	0
Sep-02	653,934	470,601	365,195	23,824	115,982	68,544	303,985	287,624	704,738	514,274	499,242	71,687	110,123	34,970
Oct-02	331,931	240,107	132,295	15,970	1,647,190	104,359	2,371,371	776,528	315,420	352,664	160,672	397,287	426,415	26,333
Nov-02	253,323	253,642	168,674	6,882	2,053,631	20,389	1,743,284	323,233	412,983	375,367	380,183	53,613	20,726	12,162
Dic-02	266,641	176,347	96,717	2,658	848,146	69,786	937,609	99,219	393,896	161,155	184,930	84,720	158,330	99,238

METODO WINTERS a = 0.9 b = 0.9 g = 0.1

MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	343,260	39,912	31,847	29,851	324,492	11,012	260,761	135,666	348,451	206,939	197,603	0	0	0
Mar-01	365,188	677,346	366,830	3,341	615,478	16,260	439,001	8,589	812,056	413,326	467,371	9,382	112,461	5,883
Abr-01	598,216	497,566	321,104	1,855	358,769	76,033	81	0	657,213	483,982	470,334	0	0	0
May-01	807,222	739,779	558,890	0	227,692	13,135	168,008	0	708,659	247,621	287,433	160,642	21,089	0
Jun-01	686,673	408,793	459,383	2,171	426,914	69,821	960,696	0	247,438	102,566	297,612	29,719	69,459	0
Jul-01	491,626	320,164	242,820	38,225	0	0	0	79,420	783,025	462,185	465,347	63,534	94,579	8,612
Ago-01	850,206	514,418	494,678	54,388	134,820	4,731	35,895	253,374	788,861	582,640	584,430	13,242	6,622	0
Sep-01	621,667	376,386	281,361	19,013	92,596	56,505	242,774	229,699	662,225	410,334	398,308	57,260	87,957	27,957
Oct-01	285,208	191,856	105,716	12,764	1,316,763	83,408	1,895,856	620,806	262,048	281,827	128,394	317,640	342,523	21,062
Nov-01	202,703	202,974	134,979	5,507	1,643,410	16,316	1,395,061	258,667	330,468	300,399	304,237	42,904	16,586	9,733
Dic-01	213,319	141,142	77,408	2,127	678,781	55,852	750,371	79,405	267,237	128,991	148,010	67,801	126,711	79,416
Ene-02	518,107	504,593	185,763	7,881	382,836	49,963	463,490	199,315	478,583	364,534	367,660	0	0	0
Feb-02	428,238	50,000	38,998	36,448	399,689	13,830	310,293	170,659	430,476	257,598	246,566	0	0	0
Mar-02	455,687	847,253	465,883	4,149	766,460	22,861	547,468	10,761	1,011,788	516,096	583,320	11,604	139,092	7,289
Abr-02	747,866	621,944	401,518	2,320	448,623	95,040	101	0	821,688	605,048	587,993	0	0	0
May-02	1,009,239	924,659	699,071	0	284,822	16,417	210,076	0	886,163	309,444	359,356	200,930	26,394	0
Jun-02	858,381	508,483	574,317	2,714	533,695	87,272	1,200,942	0	309,324	128,211	372,030	37,169	86,846	0
Jul-02	614,629	400,208	303,519	47,780	0	0	0	99,275	978,771	565,229	581,879	79,415	118,219	10,765
Ago-02	1,062,751	643,023	618,335	67,984	168,522	5,914	44,899	316,719	986,065	728,297	730,534	16,552	8,277	0
Sep-02	651,956	469,233	364,200	23,766	115,744	69,381	303,468	287,124	702,779	512,917	497,885	71,574	109,946	34,946
Oct-02	331,507	239,820	132,148	15,955	1,646,979	104,260	2,369,821	776,008	315,060	352,264	160,493	397,051	426,154	26,328
Nov-02	253,379	253,717	168,724	6,884	2,054,263	20,395	1,743,827	323,334	413,085	375,499	380,296	53,630	20,732	12,166
Dic-02	266,649	176,428	96,760	2,659	848,476	69,815	937,964	99,257	334,046	161,226	185,013	84,751	158,389	99,270

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.9 β = 0.9 γ = 0.4														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	345,250	40,093	32,037	30,116	328,062	11,124	264,749	137,873	350,406	208,401	198,840	0	0	0
Mar-01	363,702	676,205	365,286	3,320	609,317	18,130	434,029	8,491	808,857	411,274	465,316	9,274	111,209	5,781
Abr-01	597,187	496,904	320,531	1,850	357,250	76,804	81	0	656,115	482,970	469,462	0	0	0
May-01	807,144	739,724	568,833	0	227,538	13,133	167,963	0	708,592	247,492	287,402	160,498	21,083	0
Jun-01	686,787	406,837	469,448	2,172	427,059	69,838	961,064	0	247,471	102,583	297,657	29,731	69,486	0
Jul-01	491,650	320,176	242,832	38,228	0	0	0	79,431	783,062	452,212	465,371	63,543	94,592	8,614
Ago-01	850,207	514,418	494,678	54,388	134,820	4,731	35,895	253,374	788,861	582,640	584,431	13,242	6,622	0
Sep-01	521,565	375,395	291,360	19,012	92,595	55,604	242,771	229,696	562,222	410,331	398,306	57,259	87,956	27,956
Oct-01	266,205	191,856	105,718	12,764	1,316,778	83,408	1,895,849	620,804	252,048	281,827	128,394	317,839	342,521	21,062
Nov-01	202,703	202,974	134,979	5,507	1,643,410	16,316	1,395,062	258,686	330,468	300,399	304,237	42,904	16,586	9,733
Dic-01	213,319	141,142	77,408	2,127	678,781	55,852	750,371	79,405	267,237	126,981	148,010	67,801	126,711	79,416
Ene-02	516,041	502,276	184,640	7,812	377,326	49,448	455,979	198,087	476,828	361,912	365,540	0	0	0
Feb-02	430,505	50,388	39,403	36,990	409,473	14,072	318,857	175,397	434,665	260,672	248,218	0	0	0
Mar-02	464,611	845,732	464,785	4,134	762,069	22,768	543,924	10,691	1,009,507	514,638	581,559	11,528	138,194	7,217
Abr-02	746,555	621,165	400,843	2,314	446,835	94,770	101	0	820,395	603,856	586,965	0	0	0
May-02	1,008,999	924,489	698,898	0	284,456	16,410	209,937	0	885,949	309,355	359,264	200,795	26,377	0
Jun-02	858,457	508,517	574,369	2,715	533,810	87,286	1,201,236	0	309,350	126,225	372,065	37,168	86,870	0
Jul-02	614,558	400,221	303,534	47,764	0	0	0	99,288	978,816	565,282	581,710	79,425	118,235	10,767
Ago-02	1,062,756	643,026	618,338	67,984	168,525	5,914	44,869	316,724	986,070	726,302	730,638	16,553	8,277	0
Sep-02	651,956	469,232	364,199	23,766	116,743	69,380	303,465	287,121	702,777	512,915	497,883	71,574	109,945	34,945
Oct-02	331,507	239,520	132,148	15,955	1,646,974	104,260	2,369,812	776,005	315,060	352,284	160,493	397,049	428,152	26,328
Nov-02	253,379	253,717	168,724	6,884	2,054,263	20,395	1,743,827	323,334	413,085	375,499	380,296	53,630	20,732	12,166
Dic-02	266,649	176,428	96,760	2,659	848,476	69,815	937,964	99,257	334,046	161,226	185,013	84,751	158,389	99,270

CALCULOS PRONOSTICOS CON METODO WINTERS α = 0.9 β = 0.9 γ = 0.9														
MES	azul1	negro1	rojo1	verde1	azulexp1	verdeexp1	negroexp1	rojoexp1	azul2	negro2	rojo2	azulexp2	negroexp2	rojoexp2
Ene-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-01	346,618	40,397	32,356	30,547	336,667	11,317	261,696	141,703	363,713	210,882	200,935	0	0	0
Mar-01	361,187	671,595	362,671	3,286	598,660	17,906	425,392	8,320	803,430	407,794	461,834	9,087	109,003	5,601
Abr-01	595,460	495,789	319,561	1,842	354,823	76,412	80	0	654,259	481,252	467,984	0	0	0
May-01	807,012	739,630	568,737	0	227,443	13,129	167,884	0	708,479	247,443	287,351	160,420	21,073	0
Jun-01	686,927	406,910	469,560	2,172	427,309	69,866	961,702	0	247,527	102,612	297,732	29,751	69,532	0
Jul-01	491,691	320,197	242,853	38,233	0	0	0	79,449	783,125	452,257	465,412	63,558	94,614	8,617
Ago-01	850,207	514,418	494,679	54,388	134,820	4,731	35,895	253,376	788,862	582,641	584,431	13,242	6,622	0
Sep-01	521,561	375,383	291,357	19,012	92,593	55,603	242,766	229,691	562,218	410,327	398,303	57,256	87,954	27,955
Oct-01	266,205	191,855	105,718	12,764	1,316,771	83,408	1,895,836	620,800	252,047	281,826	128,394	317,837	342,519	21,062
Nov-01	202,703	202,974	134,979	5,507	1,643,410	16,316	1,395,062	258,685	330,468	300,399	304,237	42,904	16,586	9,733
Dic-01	213,320	141,142	77,408	2,127	678,782	55,852	750,372	79,405	267,237	126,981	148,010	67,801	126,711	79,416
Ene-02	509,935	498,418	182,737	7,897	368,182	48,591	443,492	190,675	471,240	357,848	361,628	0	0	0
Feb-02	437,721	51,042	40,090	37,915	426,395	14,485	333,736	183,622	441,748	269,992	252,710	0	0	0
Mar-02	462,824	843,169	462,926	4,110	754,492	22,609	537,784	10,570	1,005,650	512,165	579,385	11,395	136,631	7,088
Abr-02	744,608	619,851	399,700	2,304	443,741	94,309	100	0	818,209	601,832	585,224	0	0	0
May-02	1,008,594	924,202	698,606	0	284,168	16,398	209,696	0	885,603	309,203	359,108	200,660	26,347	0
Jun-02	858,584	508,576	574,455	2,715	534,010	87,309	1,201,746	0	309,395	126,248	372,126	37,185	86,907	0
Jul-02	614,608	400,246	303,560	47,789	0	0	0	99,311	978,893	565,318	581,781	79,444	118,262	10,771
Ago-02	1,062,765	643,030	618,344	67,985	168,528	5,914	44,870	316,732	986,078	726,309	730,645	16,553	8,277	0
Sep-02	651,953	469,230	364,197	23,765	116,742	69,380	303,460	287,117	702,773	512,911	497,880	71,573	109,943	34,944
Oct-02	331,505	239,819	132,147	15,955	1,646,954	104,260	2,369,796	775,999	315,059	352,283	160,492	397,046	428,149	26,327
Nov-02	253,379	253,717	168,724	6,884	2,054,262	20,395	1,743,826	323,334	413,085	375,499	380,296	53,630	20,732	12,166
Dic-02	266,649	176,428	96,760	2,659	848,477	69,815	937,965	99,257	334,046	161,226	185,013	84,751	158,389	99,270



APENDICE18
CALCULO DE ERRORES

METODO DE PRONOSTICO		Promedio Móvil	Suavización Exponencial α=0.1	Suavización Exponencial α=0.4	Suavización Exponencial α=0.9	Método Tendencia α=0.10, β =0.1	Método Tendencia α=0.10, β =0.4
Azul1	EMA	288,164	223,640	237,310	221,727	238,146	268,325
	EMRC	311,548	276,666	288,481	260,831	291,508	322,938
	PAME	59,87%	46,78%	49,06%	37,70%	54,13%	63,45%
Negro1	EMA	219,678	229,447	251,242	274,506	242,083	252,587
	EMRC	252,676	266,455	285,802	336,893	279,351	288,289
	PAME	54,16%	126,23%	124,63%	120,66%	134,11%	136,33%
Rojo1	EMA	181,020	198,190	190,877	182,122	215,549	257,459
	EMRC	208,067	236,545	214,518	217,386	245,613	280,912
	PAME	75,47%	95,49%	100,08%	87,37%	112,14%	141,90%
Verde1	EMA	21,400	16,068	18,943	17,668	17,247	19,471
	EMRC	26,913	22,585	23,175	23,009	22,808	24,118
	PAME	1,43E+12	7,76E+11	7,39E+11	2,33E+11	8,57E+11	9,84E+11
AzulExp1	EMA	544,569	408,464	445,331	458,070	408,271	419,666
	EMRC	772,928	632,097	635,783	633,038	623,398	636,193
	PAME	4225146666666730,00%	3539209662407110,00%	3862119274666710,00%	4256455408000050,00%	3860917805875170,00%	4100351415938690,00%
VerdeExp1	EMA	39,830	35,516	39,054	47,028	35,444	36,361
	EMRC	46,410	37,938	43,266	54,929	38,016	38,987
	PAME	6626400101,68%	4171262619,01%	4927700283,23%	6741118526,67%	4366179485,13%	4115682974,67%
NegroExp1	EMA	722,740	519,183	550,459	609,837	523,927	528,694
	EMRC	941,378	748,881	768,914	824,937	745,044	766,584
	PAME	4703218400043610,00%	3954479584760980,00%	5253865568037980,00%	9167731756043310,00%	4126406772378410,00%	3841726295676320,00%
RojoExp1	EMA	192,360	161,097	158,910	161,947	164,424	176,066
	EMRC	245,408	219,755	216,579	218,771	224,217	245,783
	PAME	1907840000000060,00%	4033618186592270,00%	1914057600000170,00%	2499166000000173,00%	4126116897659360,00%	3629941811722980,00%
Azul2	EMA	271,026	262,326	257,876	267,955	280,266	311,864
	EMRC	320,923	303,537	304,534	338,572	315,367	347,759
	PAME	61,83%	45,92%	50,99%	49,03%	53,86%	64,17%
Negro2	EMA	216,931	159,261	183,446	183,445	161,341	169,437
	EMRC	237,326	184,463	202,755	202,755	187,936	194,611
	PAME	75,92%	53,57%	62,20%	62,20%	58,08%	61,68%
Rojo2	EMA	181,423	149,217	149,217	149,217	152,623	165,776
	EMRC	209,856	180,204	180,204	180,204	186,556	199,166
	PAME	60,56%	46,25%	46,25%	46,25%	51,39%	57,37%
AzulExp2	EMA	107,004	87,465	83,445	102,533	67,988	75,901
	EMRC	147,349	124,137	127,970	153,035	122,662	122,749
	PAME	1527680000000100,00%	485845988106533,00%	848208992550481,00%	675967805382403,00%	658686377750749,00%	1050558381598340,00%
NegroExp2	EMA	102,940	88,050	97,604	127,406	87,958	87,184
	EMRC	143,763	133,084	136,679	168,522	130,575	126,820
	PAME	2154466666666850,00%	667257777044543,00%	1481160809813510,00%	2078807615074030,00%	869971323844199,00%	1320611018950330,00%
RojoExp2	EMA	19,319	15,835	17,569	22,124	15,768	15,607
	EMRC	30,038	29,568	29,828	37,935	29,116	28,183
	PAME	4921733333333347,00%	1450810886721247,00%	4330523263317755,00%	7720156830459200,00%	1747409281298730,00%	2527326434895580,00%

METODO PRONOST	Método Tendencia α=0.10, β =0.9	Método Tendencia α=0.4, β =0.1	Método Tendencia α=0.4, β =0.4	Método Tendencia α=0.4, β =0.9	Método Tendencia α=0.9, β =0.1	Método Tendencia α=0.9, β =0.4
	292,456	249,649	259,109	283,340	235,454	265,553
	358,775	283,396	311,191	341,318	273,117	302,578
Azul1	71.67%	53.42%	52.48%	53.34%	40.27%	45.74%
	271,143	260,140	267,528	281,665	285,452	317,900
	304,179	295,636	322,070	356,616	352,194	398,273
Negro1	139.42%	127.90%	123.54%	124.80%	123.01%	127.41%
	283,735	199,630	199,630	212,590	194,983	225,574
	316,141	226,611	226,611	249,277	226,785	252,354
Rojo1	162.25%	108.82%	108.82%	107.47%	91.61%	97.92%
	22,451	20,620	23,192	27,633	18,352	18,925
	26,216	24,268	27,174	32,200	24,127	27,138
Verde1	1.16E+12	8.18E+11	8.75E+11	6.54E+11	1.80E+11	1.77E+11
	440,707	468,392	522,085	629,036	475,048	498,835
	669,872	657,414	739,621	878,223	664,178	739,880
AzulExp1	439798797922510.00%	4071199929058700.00%	4096045241800070.00%	3594106373610240.00%	4358410505694060.00%	4434124279375550.00%
	36,417	39,482	41,476	45,459	49,137	57,203
	39,952	44,119	47,091	53,544	57,450	66,107
VerdeExp1	3899586369.28%	5076489425.96%	5432069725.12%	6534426671.04%	7064349589.05%	7932610717.14%
	541,394	575,171	636,061	724,178	656,251	771,003
	794,168	791,499	870,428	999,467	864,860	977,831
NegroExp1	3490289503009050.00%	5356112697833560.00%	5571310224898990.00%	6744485993320720.00%	9769999927335760.00%	11938512786706400.00%
	204,861	170,884	202,057	204,471	162,316	190,150
	272,276	227,338	258,944	279,450	229,015	255,748
RojoExp1	2853526881884200.00%	1622257425612990.00%	1124010391347410.00%	1688976216883420.00%	356216254003380.00%	1073185449523390.00%
	314,087	263,382	256,952	285,841	268,262	321,044
	369,627	316,997	335,300	369,298	354,179	402,203
Azul2	88.67%	54.95%	54.75%	58.25%	51.54%	59.10%
	177,389	193,126	214,013	249,601	209,810	230,491
	204,085	209,568	227,931	266,843	235,237	269,653
Negro2	85.58%	66.78%	72.75%	80.50%	64.32%	66.22%
	175,707	173,547	185,556	207,884	194,960	222,109
	211,620	197,805	212,842	240,559	221,858	252,646
Rojo2	62.36%	57.54%	60.20%	62.74%	60.50%	65.36%
	85,939	88,353	100,151	116,586	107,324	120,133
	127,573	131,345	140,152	155,440	159,941	181,632
AzulExp2	1383624604397730.00%	1007399048168820.00%	1119601325018390.00%	1045892105776510.00%	701324510933182.00%	517715879694178.00%
	92,170	99,598	109,180	122,339	131,415	147,605
	132,105	139,768	148,755	162,823	176,047	200,064
NegroExp2	1711349228126360.00%	1706269221660700.00%	2006355307060830.00%	2172906904123830.00%	2239184144005160.00%	2454981815182780.00%
	16,267	17,998	19,084	20,711	23,346	26,812
	27,587	30,058	31,384	33,965	39,636	45,016
RojoExp2	3545573285962590.00%	4901933918241480.00%	6134854917477460.00%	7315864756641710.00%	8438496134303890.00%	10270718318638400.00%

METODO PRONOST	Método Tendencia α=0.9, β =0.9	Winters α=0.1, β =0.10, γ = 0.1	Winters α=0.1, β =0.1, γ = 0.4	Winters α=0.1, β =0.1, γ = 0.9	Winters α=0.1, β =0.4, γ = 0.1	Winters α=0.1, β =0.4, γ = 0.4	Winters α=0.1, β =0.4, γ = 0.9	Winters α=0.1, β =0.9, γ = 0.1	Winters α=0.1, β =0.9, γ = 0.4	Winters α=0.1, β =0.9, γ = 0.9
	285,726	4,856	5,515	6,742	5,828	6,378	7,700	4,367	4,293	4,546
	342,672	31,952,906	41,802,454	67,024,861	53,318,389	62,101,522	85,401,236	35,795,758	31,063,921	34,070,789
Azul1	50.78%	0.99%	1.12%	1.35%	0.99%	1.08%	1.30%	0.66%	0.69%	0.87%
	317,900	11,849	11,606	11,249	5,152	5,187	5,284	2,884	2,471	2,356
	398,273	204,124,694	202,835,322	204,869,155	38,578,103	38,833,359	44,056,689	16,530,951	13,464,150	13,463,921
Negro1	127.41%	2.73%	2.67%	2.63%	1.16%	1.17%	1.24%	0.63%	0.55%	0.60%
	273,168	16,540	16,832	17,329	9,890	10,126	10,527	8,182	8,041	7,868
	309,500	402,565,413	417,899,122	447,149,192	164,957,662	176,020,542	197,451,177	121,332,433	118,388,679	116,816,800
Rojo1	107.97%	5.34%	5.43%	5.57%	3.24%	3.27%	3.32%	2.18%	2.20%	2.28%
	23,472	1,170	1,180	1,224	730	738	754	434	417	391
	30,995	3,406,611	3,522,401	3,745,520	1,488,421	1,526,350	1,609,325	557,023	495,745	432,886
Verde1	6.95E+11	7.14%	7.27%	7.48%	4.08%	4.12%	4.22%	2.74%	2.79%	2.92%
	590,608	23,838	24,405	25,405	16,369	16,337	16,455	7,191	8,559	12,729
	820,819	1,249,806,719	1,308,667,010	1,451,738,812	528,797,033	495,291,307	489,390,737	82,492,730	115,536,825	276,872,117
AzulExp1	5373379755469860.00%	4.32%	4.52%	4.88%	2.75%	2.88%	3.37%	1.85%	1.96%	2.40%
	73,886	1,353	1,331	1,348	496	534	640	225	236	448
	84,636	3,343,932	3,407,612	3,683,036	512,835	601,937	956,091	158,804	175,019	487,809
VerdeExp1	9572717680.18%	3.14%	3.06%	3.12%	1.31%	1.37%	1.68%	0.68%	0.69%	1.19%
	942,601	16,491	16,873	18,365	13,110	13,254	14,221	5,359	7,110	12,138
	1,155,926	786,490,260	847,602,412	1,046,789,691	430,867,900	407,845,318	434,117,662	69,227,967	94,798,787	309,533,335
NegroExp1	16283013181352400.00%	2.90%	3.13%	3.63%	2.09%	2.34%	2.94%	1.40%	1.58%	2.19%
	208,634	5,650	5,836	6,185	1,973	2,505	3,457	777	1,603	3,664
	305,855	80,920,411	86,333,274	100,719,210	11,803,239	17,966,080	35,570,924	1,891,718	8,163,119	36,869,663
RojoExp1	1448385142579370.00%	3.02%	2.98%	3.30%	1.28%	1.48%	2.14%	0.61%	0.90%	1.92%
	391,090	12,811	13,321	14,202	10,303	10,730	11,828	8,086	8,045	8,165
	490,460	235,279,401	255,257,703	299,165,007	149,044,323	164,284,461	200,122,122	105,769,103	103,267,063	111,159,075
Azul2	64.73%	2.28%	2.37%	2.52%	1.81%	1.85%	2.00%	1.22%	1.24%	1.34%
	263,230	2,971	3,552	4,863	3,060	3,579	4,643	2,101	2,227	3,079
	319,863	15,365,904	19,919,730	33,408,138	18,386,702	22,340,404	35,248,166	9,680,393	9,025,700	16,344,282
Negro2	63.33%	0.80%	0.97%	1.34%	0.76%	0.90%	1.21%	0.51%	0.59%	0.88%
	271,846	3,346	3,851	4,892	3,735	4,208	5,183	2,719	2,760	3,202
	303,645	15,029,170	19,770,898	32,794,258	23,374,712	27,498,113	39,739,905	14,183,944	12,984,231	17,774,609
Rojo2	76.71%	0.92%	1.06%	1.35%	0.92%	1.03%	1.27%	0.61%	0.66%	0.88%
	154,582	10,358	10,459	10,636	5,750	5,782	5,837	2,730	2,623	2,497
	228,637	316,195,722	324,474,440	336,468,316	110,486,399	109,378,963	108,249,565	25,117,844	23,547,145	23,783,390
AzulExp2	211098032081869.00%	14.11%	14.34%	14.76%	7.34%	7.42%	7.66%	4.92%	5.04%	5.33%
	190,357	11,778	11,903	12,119	6,502	6,503	6,503	2,986	2,915	2,855
	255,675	373,726,519	379,803,514	391,581,588	126,071,665	123,056,984	118,873,069	19,417,808	18,208,295	19,796,826
NegroExp2	2932476177554640.00%	14.11%	14.34%	14.75%	7.34%	7.42%	7.64%	4.92%	5.03%	5.32%
	33,123	1,971	1,972	1,974	1,080	1,039	966	366	394	511
	55,960	15,773,506	15,815,126	15,941,748	4,125,410	3,656,686	2,945,996	484,911	670,738	1,299,602
RojoExp2	1383980945612570.00%	14.20%	14.55%	15.20%	7.36%	7.50%	8.18%	4.95%	5.17%	5.83%

METODO PRONOST	Winters α=0.4, β =0.1, γ = 0.1	Winters α=0.4, β =0.1, γ = 0.4	Winters α=0.4, β =0.1, γ = 0.9	Winters α=0.4, β =0.4, γ = 0.1	Winters α=0.4, β =0.4, γ = 0.4	Winters α=0.4, β =0.4, γ = 0.9	Winters α=0.4, β =0.9, γ = 0.1	Winters α=0.4, β =0.9, γ = 0.4	Winters α=0.4, β =0.9, γ = 0.9	Winters α=0.9, β =0.1, γ = 0.1	Winters α=0.9, β =0.1, γ = 0.4
Azul1	2,738	2,921	3,403	2,129	2,001	2,228	1,724	2,007	3,006	1,819	2,033
	11,987,499	12,743,048	17,867,643	7,146,210	6,853,272	11,266,771	5,668,170	6,913,249	15,138,939	6,702,788	7,486,372
	0.47%	0.51%	0.63%	0.35%	0.35%	0.44%	0.30%	0.35%	0.55%	0.29%	0.35%
Negro1	3,642	3,634	3,643	2,044	1,946	1,865	1,653	1,765	2,102	1,913	2,035
	20,515,118	19,728,053	20,440,109	7,768,399	6,962,966	7,980,499	5,011,903	5,243,420	8,395,821	5,897,766	6,533,139
	0.79%	0.78%	0.83%	0.42%	0.38%	0.42%	0.36%	0.36%	0.48%	0.42%	0.41%
Rojo1	4,126	4,166	4,321	2,600	2,440	2,254	1,468	1,487	1,784	1,992	1,959
	44,096,272	45,321,125	48,206,349	16,554,901	15,525,961	16,101,177	5,909,327	5,749,335	7,300,163	10,447,185	9,930,349
	1.36%	1.38%	1.46%	0.74%	0.73%	0.79%	0.48%	0.53%	0.71%	0.63%	0.66%
Verde1	280	287	308	113	108	138	107	134	187	154	176
	285,302	296,704	333,628	46,151	60,384	111,523	49,472	75,589	148,549	87,092	112,824
	1.78%	1.81%	1.96%	0.89%	0.89%	1.03%	0.58%	0.69%	0.98%	0.81%	0.87%
AzulExp1	5,433	5,965	7,244	2,585	2,909	4,879	1,614	2,768	5,379	2,327	2,908
	76,579,719	79,589,744	107,009,037	15,970,540	26,077,339	67,391,794	9,025,527	19,404,992	64,352,094	12,919,759	18,567,056
	1.14%	1.27%	1.60%	0.62%	0.71%	1.14%	0.43%	0.68%	1.25%	0.54%	0.70%
VerdeExp1	352	372	423	150	148	221	121	170	295	160	199
	224,349	251,139	377,833	59,667	71,622	178,962	33,184	73,585	245,784	47,177	79,556
	0.90%	0.93%	1.10%	0.42%	0.44%	0.72%	0.35%	0.46%	0.64%	0.44%	0.54%
NegroExp1	4,380	4,883	5,868	1,766	2,201	23,288	1,231	2,933	6,170	19,326	2,411
	54,602,057	52,271,939	75,176,069	7,371,308	15,050,162	1,981,294,849	4,083,133	19,300,412	84,506,306	1,601,726,427	13,241,183
	0.87%	1.05%	1.42%	0.50%	0.93%	5.62%	0.37%	0.68%	1.38%	4.44%	0.62%
RojoExp1	1,237	1,604	2,399	269	542	1,469	466	850	1,607	497	875
	3,388,344	5,989,169	14,641,416	171,517	1,183,927	7,351,634	549,432	1,957,885	8,785,994	582,657	2,116,186
	0.87%	0.97%	1.36%	0.37%	0.54%	1.18%	0.33%	0.62%	1.30%	0.41%	0.64%
Azul2	4,313	4,395	5,032	3,256	3,186	3,319	2,552	2,609	3,450	2,556	2,759
	33,895,384	37,260,508	47,581,388	19,540,872	20,397,424	27,794,149	13,119,864	14,753,639	24,030,742	13,358,247	14,085,708
	0.76%	0.77%	0.89%	0.49%	0.49%	0.55%	0.36%	0.40%	0.59%	0.40%	0.45%
Negro2	1,621	1,629	2,255	1,292	1,287	1,754	1,247	1,462	2,239	1,170	1,359
	4,998,378	5,785,281	10,177,915	3,308,331	3,678,957	7,950,133	3,181,514	4,001,598	9,086,731	3,319,898	3,988,779
	0.40%	0.47%	0.61%	0.30%	0.32%	0.50%	0.28%	0.37%	0.64%	0.26%	0.33%
Rojo2	1,838	2,011	2,383	1,481	1,441	1,750	1,314	1,468	2,192	1,296	1,453
	5,805,262	6,497,684	10,188,321	3,943,215	4,166,237	7,612,421	3,496,169	4,134,978	8,424,513	3,716,090	4,161,039
	0.45%	0.50%	0.62%	0.33%	0.34%	0.46%	0.29%	0.36%	0.59%	0.28%	0.34%
AzulExp2	2,163	2,121	2,048	638	576	598	319	308	512	813	772
	20,178,726	19,412,726	18,207,116	2,822,038	2,480,107	2,149,896	309,537	290,027	597,829	2,753,627	2,504,364
	3.50%	3.54%	3.64%	1.51%	1.58%	1.97%	1.02%	1.28%	1.89%	1.55%	1.70%
NegroExp2	2,447	2,438	2,422	736	709	880	531	643	953	955	930
	21,243,004	20,759,471	20,303,152	2,713,102	3,161,601	4,504,963	1,791,026	2,195,834	3,447,813	3,162,527	2,986,492
	3.50%	3.54%	3.83%	1.51%	1.57%	1.95%	1.02%	1.27%	1.87%	1.55%	1.69%
RojoExp2	337	318	284	58	73	118	52	71	109	126	117
	577,152	504,079	390,576	19,244	24,050	43,579	10,907	16,667	37,916	72,858	63,421
	3.51%	3.67%	4.20%	1.50%	1.76%	2.56%	1.10%	1.55%	2.57%	1.57%	1.83%

METODO PRONOST	Winters α=0.9, β =0.1, γ = 0.9	Winters α=0.9, β =0.4, γ = 0.1	Winters α=0.9, β =0.4, γ = 0.4	Winters α=0.9, β =0.4, γ = 0.9	Winters α=0.9, β =0.9, γ = 0.1	Winters α=0.9, β =0.9, γ = 0.4	Winters α=0.9, β =0.9 γ = 0.9
Azul1	2,497	1,542	1,833	2,486	1,734	2,295	3,362
	12,788,500	7,910,462	9,138,544	15,890,344	13,038,175	14,976,674	25,613,998
	0.46%	0.24%	0.30%	0.46%	0.26%	0.38%	0.62%
Negro1	2,296	1,257	1,471	1,881	1,192	1,510	2,107
	8,770,514	4,034,570	4,797,601	7,463,415	5,418,485	6,595,667	11,216,643
	0.53%	0.27%	0.29%	0.43%	0.27%	0.32%	0.50%
Rojo1	2,023	1,229	1,229	1,243	1,008	1,132	1,560
	9,402,216	3,898,795	3,571,095	3,547,132	4,267,084	4,472,647	5,985,754
	0.78%	0.39%	0.44%	0.56%	0.33%	0.43%	0.67%
Verde1	217	108	139	192	128	167	234
	189,535	54,297	81,815	174,652	71,895	108,560	243,935
	1.03%	0.44%	0.54%	0.71%	0.37%	0.55%	0.90%
AzulExp1	3,967	11,087	1,779	3,247	999	2,476	5,033
	45,722,838	606,797,909	11,443,122	47,046,969	2,992,854	18,269,474	87,204,121
	0.98%	2.40%	0.51%	0.93%	0.32%	0.66%	1.25%
VerdeExp1	279	59	112	210	53	119	240
	197,175	8,500	38,785	163,725	6,103	36,239	182,968
	0.80%	0.26%	0.41%	0.74%	0.26%	0.46%	0.87%
NegroExp1	3,466	805	1,577	3,262	883	2,163	4,364
	43,682,199	1,687,959	10,250,316	48,722,274	2,228,056	15,691,690	75,841,827
	0.96%	0.30%	0.53%	1.05%	0.32%	0.70%	1.36%
RojoExp1	1,603	324	706	1,388	488	921	1,692
	9,431,157	366,125	1,939,129	10,173,592	755,919	2,990,809	14,484,072
	1.08%	0.26%	0.55%	1.08%	0.26%	0.63%	1.30%
Azul2	3,203	2,118	2,279	2,828	2,056	2,651	3,901
	18,870,263	11,180,504	12,119,940	18,506,963	14,262,202	17,031,984	31,009,216
	0.56%	0.29%	0.34%	0.48%	0.29%	0.40%	0.63%
Negro2	1,797	1,073	1,421	2,094	1,302	1,857	2,815
	7,644,310	4,020,922	4,949,237	9,705,649	6,307,020	8,035,546	16,409,295
	0.49%	0.21%	0.33%	0.56%	0.25%	0.42%	0.70%
Rojo2	1,769	1,148	1,375	1,979	1,302	1,791	2,658
	6,855,078	4,323,725	4,977,393	8,532,498	6,635,806	8,011,978	14,721,508
	0.46%	0.26%	0.31%	0.51%	0.26%	0.40%	0.65%
AzulExp2	702	144	138	128	112	124	151
	2,100,233	104,012	68,765	69,991	36,333	38,899	51,260
	1.99%	0.68%	0.87%	1.20%	0.54%	0.88%	1.56%
NegroExp2	881	243	225	195	175	216	383
	2,709,642	472,115	354,968	203,984	90,320	180,658	835,941
	1.98%	0.68%	0.87%	1.19%	0.54%	0.87%	1.53%
RojoExp2	102	13	12	12	12	18	32
	48,341	1,213	804	474	418	1,363	6,376
	2.27%	0.72%	1.00%	1.62%	0.60%	1.17%	2.20%

APENDICE 21
PLAN MAESTRO DE PRODUCCION (MPS)

AZUL 1	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	440,349										
Ft	531,686	566,236	924,070	1,241,583	1,052,087	750,547	1,278,255	793,067	401,624	305,507	320,414
It	0	0	0	0	0	0	0	0	0	0	0
MPS	91,337	566,236	924,070	1,241,583	1,052,087	750,547	1,278,255	793,067	401,624	305,507	320,414

NEGRO1	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	385,305										
Ft	62,450	1,053,273	768,978	1,138,596	623,933	489,416	774,195	571,758	291,069	306,494	212,428
It	322,855	0	0	0	0	0	0	0	0	0	0
MPS	0	730,418	768,978	1,138,596	623,933	489,416	774,195	571,758	291,069	306,494	212,428

ROJO1	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	165,131										
Ft	48,673	566,827	496,494	860,819	704,701	371,169	744,869	443,710	160,370	203,814	116,502
It	116,458	0	0	0	0	0	0	0	0	0	0
MPS	0	450,369	496,494	860,819	704,701	371,169	744,869	443,710	160,370	203,814	116,502

VERDE1	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	110,087										
Ft	45,304	5,163	2,870	0	3,330	58,427	81,963	28,947	19,359	8,316	3,202
It	64,783	59,620	56,750	56,750	53,420	0	0	0	0	0	0
MPS	0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202

AZUL EXP 1	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	459,116										
Ft	495,561	954,403	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,481,095	1,021,507
It	0	0	0	0	0	0	0	0	0	0	0
MPS	36,445	954,403	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,481,095	1,021,507

VERDE EXP 1	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	114,779										
Ft	17,222	28,439	117,561	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
It	97,558	69,119	0	0	0	0	0	0	0	0	0
MPS	0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056

NEGRO EXP 1	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	401,727										
Ft	384,068	681,619	125	258,534	1,472,162	0	54,154	368,984	2,870,491	2,103,177	1,127,549
It	17,659	0	0	0	0	0	0	0	0	0	0
MPS	0	663,961	125	258,534	1,472,162	0	54,154	368,984	2,870,491	2,103,177	1,127,549

ROJO EXP 1	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	185,131										
Ft	211,491	0	0	0	0	121,273	382,213	349,119	939,964	389,960	119,317
It	0	0	0	0	0	0	0	0	0	0	0
MPS	46,360	0	0	0	0	121,273	382,213	349,119	939,964	389,960	119,317

AZUL 2	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	81,541										
Ft	536,891	1,257,342	1,015,309	1,090,163	379,126	1,195,405	1,185,976	854,891	381,699	498,069	401,398
It	0	0	0	0	0	0	0	0	0	0	0
MPS	455,350	1,257,342	1,015,309	1,090,163	379,126	1,195,405	1,185,976	854,891	381,699	498,069	401,398

NEGRO 2	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	63,400										
Ft	320,842	641,527	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
It	0	0	0	0	0	0	0	0	0	0	0
MPS	257,442	641,527	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743

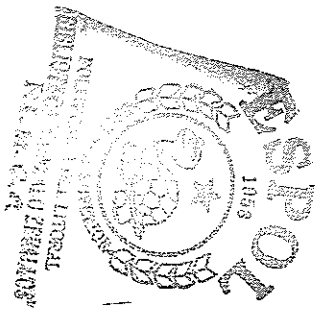
ROJO 2	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	36,228										
Ft	306,115	724,978	726,612	442,097	455,985	710,432	878,805	605,633	194,437	458,541	222,321
It	0	0	0	0	0	0	0	0	0	0	0
MPS	269,887	724,978	726,612	442,097	455,985	710,432	878,805	605,633	194,437	458,541	222,321

AZUL EXP 2	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	107,535										
Ft	0	14,472	0	247,483	45,686	97,100	20,007	87,119	481,512	64,769	102,031
It	107,535	93,063	93,063	154,420	0	0	0	0	0	0	0
MPS	0	0	0	247,483	45,686	97,100	20,007	87,119	481,512	64,769	102,031

NEGRO EXP2	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	83,638										
Ft	0	173,458	0	32,509	106,545	144,547	10,004	133,828	519,242	25,038	190,684
It	0	0	0	0	0	0	0	0	0	0	0
MPS	0	173,458	0	32,509	106,545	144,547	10,004	133,828	519,242	25,038	190,684

ROJO EXP 2	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
Io:	47,793										
Ft	0	9,112	0	0	0	13,161	0	42,506	31,912	14,691	119,501
It	47,793	38,681	38,681	38,681	38,681	25,520	25,520	0	0	0	0
MPS	0	0	0	0	0	0	0	16,986	31,912	14,691	119,501

TOTAL LOCAL	1,074,016	4,370,870	4,679,234	5,153,960	3,372,977	4,212,326	5,820,406	3,921,905	1,875,342	2,233,507	1,470,008
TOTAL EXPORTACIÓN	82,805	1,791,822	603,880	909,257	2,386,153	362,920	677,023	1,181,454	6,966,101	5,103,366	2,764,646
TOTAL	1,156,821	6,162,692	5,283,114	6,063,217	5,759,130	4,575,246	6,497,429	5,103,359	8,841,443	7,336,873	4,234,653



AZUL 1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	775,985	635,492	675,017	1,098,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	775,985	635,492	675,017	1,098,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217

NEGRO1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	757,372	74,782	1,257,886	915,983	1,352,847	739,526	578,710	913,331	672,997	341,858	359,207	248,448
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	757,372	74,782	1,257,886	915,983	1,352,847	739,526	578,710	913,331	672,997	341,858	359,207	248,448

ROJO1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	278,845	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	278,845	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254

VERDE1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	11,829	54,247	6,166	3,419	0	3,947	69,084	96,689	34,072	22,736	9,745	3,745
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	11,829	54,247	6,166	3,419	0	3,947	69,084	96,689	34,072	22,736	9,745	3,745

AZUL EXP 1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606

VERDE EXP 1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	74,987	20,621	33,962	140,027	24,018	126,911	0	8,414	99,458	148,562	28,870	98,304
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	74,987	20,621	33,962	140,027	24,018	126,911	0	8,414	99,458	148,562	28,870	98,304

NEGRO EXP 1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	694,477	459,215	812,845	149	306,760	1,742,568	0	63,606	433,783	3,367,323	2,462,024	1,317,236
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	694,477	459,215	812,845	149	306,760	1,742,568	0	63,606	433,783	3,367,323	2,462,024	1,317,236

ROJO EXP 1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	298,642	252,868	15,973	0	0	0	143,211	450,328	410,425	1,102,645	456,492	139,388
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	298,642	252,868	15,973	0	0	0	143,211	450,328	410,425	1,102,645	456,492	139,388

AZUL 2	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	716,784	641,710	1,498,887	1,207,285	1,293,094	448,621	1,411,230	1,396,925	1,004,729	447,637	582,889	468,798
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	716,784	641,710	1,498,887	1,207,285	1,293,094	448,621	1,411,230	1,396,925	1,004,729	447,637	582,889	468,798

NEGRO 2	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,258	733,276	500,529	529,891	226,283
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,258	733,276	500,529	529,891	226,283

ROJO 2	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	551,010	365,886	864,268	864,015	524,401	539,579	838,711	1,035,135	711,795	228,029	536,637	259,655
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	551,010	365,886	864,268	864,015	524,401	539,579	838,711	1,035,135	711,795	228,029	536,637	259,655

AZUL EXP 2	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	0	0	17,281	0	294,010	54,024	114,801	23,599	102,532	565,462	75,900	119,318
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	0	0	17,281	0	294,010	54,024	114,801	23,599	102,532	565,462	75,900	119,318

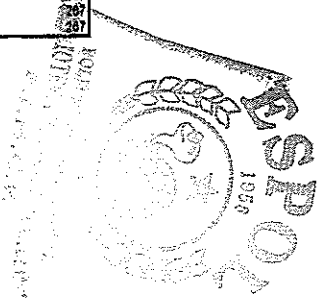
NEGRO EXP2	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	0	0	207,125	0	38,621	126,267	170,897	11,800	157,505	609,772	29,341	222,992
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	0	0	207,125	0	38,621	126,267	170,897	11,800	157,505	609,772	29,341	222,992

ROJO EXP 2	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
Io:												
Ft	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
It	0	0	0	0	0	0	0	0	0	0	0	0
MPS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736

TOTAL LOCAL	3,637,827	2,213,896	5,743,953	5,570,094	6,117,418	3,997,817	5,037,697	6,858,681	4,611,209	2,200,144	2,614,768	1,717,400
TOTAL EXPORTACION	1,642,656	1,326,048	2,237,743	801,573	1,079,836	2,625,777	444,467	798,010	1,419,579	8,175,866	5,977,393	3,231,581
TOTAL	5,280,483	3,539,944	7,981,697	6,371,667	7,197,254	6,623,595	5,482,164	7,656,691	6,030,788	10,376,010	8,592,161	4,948,981

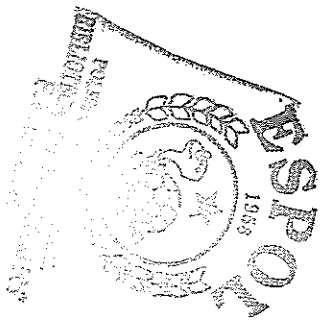
APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

	AZUL 1	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
	Io:	440,349											
	Ft		531,666	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	It		0	0	0	0	0	0	0	0	0	0	0
	MPS		91,337	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	1.AZUL 1												
	NECESIDADES BRUTAS		91,337	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		91,337	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	RECEPCION PEDIDOS PLANIFICADOS		91,337	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	LANZAMIENTO PEDIDOS PLANIFICADOS		91,337	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	1.1REPUESTO												
	NECESIDADES BRUTAS		91,337	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	DISPONIBILIDAD	20,104	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		71,174	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	RECEPCION PEDIDOS PLANIFICADOS		71,174	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	LANZAMIENTO PEDIDOS PLANIFICADOS		71,174	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	1.2 BARRIL												
	NECESIDADES BRUTAS		71,174	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	DISPONIBILIDAD	15,250	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		55,924	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	RECEPCION PEDIDOS PLANIFICADOS		55,924	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	LANZAMIENTO PEDIDOS PLANIFICADOS		55,924	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	1.3 TAPA												
	NECESIDADES BRUTAS		91,337	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	DISPONIBILIDAD	18,592	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		72,745	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	RECEPCION PEDIDOS PLANIFICADOS		72,745	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	LANZAMIENTO PEDIDOS PLANIFICADOS		72,745	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	1.4 BOTON												
	NECESIDADES BRUTAS		91,337	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	DISPONIBILIDAD	25,600	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		65,737	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	RECEPCION PEDIDOS PLANIFICADOS		65,737	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	LANZAMIENTO PEDIDOS PLANIFICADOS		65,737	566,236	924,070	1,241,693	1,052,087	750,547	1,278,255	793,087	401,624	305,507	320,414
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS		76	472	770	1,035	877	625	1,065	661	335	255	267
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		76	472	770	1,035	877	625	1,065	661	335	255	267
	RECEPCION PEDIDOS PLANIFICADOS		76	472	770	1,035	877	625	1,065	661	335	255	267
	LANZAMIENTO PEDIDOS PLANIFICADOS		76	472	770	1,035	877	625	1,065	661	335	255	267



	1.6 CAJILLA											
	NECESIDADES BRUTAS		3,806	23,693	38,503	51,733	43,837	31,273	53,261	33,044	18,734	12,729	13,351
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		3,806	23,693	38,503	51,733	43,837	31,273	53,261	33,044	18,734	12,729	13,351
	RECEPCION PEDIDOS PLANIFICADOS		3,806	23,693	38,503	51,733	43,837	31,273	53,261	33,044	18,734	12,729	13,351
	LANZAMIENTO PEDIDOS PLANIFICADOS		3,806	23,693	38,503	51,733	43,837	31,273	53,261	33,044	18,734	12,729	13,351
	1.1.1 PUNTO												
	NECESIDADES BRUTAS		71,174	566,236	924,070	1,241,583	1,052,087	750,547	1,278,255	793,067	401,624	305,507	320,414
	DISPONIBILIDAD	250,000	166,826	22,591	23,521	6,938	4,851	4,304	1,049	7,982	6,359	851	8,437
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	377,409	901,479	1,218,062	1,045,149	745,696	1,273,851	782,018	393,641	299,149	319,583
	RECEPCION PEDIDOS PLANIFICADOS		0	400,000	925,000	1,225,000	1,050,000	750,000	1,275,000	800,000	400,000	350,000	325,000
	LANZAMIENTO PEDIDOS PLANIFICADOS		925,000	1,225,000	1,050,000	750,000	1,275,000	800,000	400,000	300,000	325,000	775,000	650,000
	1.1.2 TINTA	0.000032 K											
	NECESIDADES BRUTAS		22.76	181.20	295.70	397.31	336.67	240.18	409.04	253.78	128.52	97.76	102.53
	DISPONIBILIDAD	56.00	33.22	51.03	55.33	58.02	21.35	61.18	72.14	16.35	89.83	92.07	89.54
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	148.97	244.67	341.98	278.65	218.82	327.86	181.65	110.17	7.93	10.49
	RECEPCION PEDIDOS PLANIFICADOS		0.00	200.00	300.00	400.00	300.00	300.00	400.00	200.00	200.00	100.00	100.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		300.00	400.00	300.00	300.00	400.00	200.00	200.00	100.00	100.00	200.00	200.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS		71,174	566,236	924,070	1,241,583	1,052,087	750,547	1,278,255	793,067	401,624	305,507	320,414
	DISPONIBILIDAD	123,800	52,326	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	513,909	924,070	1,241,583	1,052,087	750,547	1,278,255	793,067	401,624	305,507	320,414
	RECEPCION PEDIDOS PLANIFICADOS		0	513,909	924,070	1,241,583	1,052,087	750,547	1,278,255	793,067	401,624	305,507	320,414
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	513,909	924,070	1,241,583	1,052,087	750,547	1,278,255	793,067	401,624	305,507	320,414
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS		71,174	566,236	924,070	1,241,583	1,052,087	750,547	1,278,255	793,067	401,624	305,507	320,414
	DISPONIBILIDAD	250,000	178,826	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	387,409	924,070	1,241,583	1,052,087	750,547	1,278,255	793,067	401,624	305,507	320,414
	RECEPCION PEDIDOS PLANIFICADOS		0	387,409	924,070	1,241,583	1,052,087	750,547	1,278,255	793,067	401,624	305,507	320,414
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	387,409	924,070	1,241,583	1,052,087	750,547	1,278,255	793,067	401,624	305,507	320,414
	1.2.1 POLIESTIRENO	0.0035 KG											
	NECESIDADES BRUTAS		195.73	1,981.83	3,234.24	4,345.54	3,682.30	2,626.91	4,473.89	2,775.73	1,405.68	1,069.28	1,121.45
	DISPONIBILIDAD	135.00	2,189.27	207.44	33.20	7.66	16.36	43.44	24.55	38.81	28.13	38.85	42.41
NIVEL 2	RECEPCIONES PROGRAMADAS		2,250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	3,026.80	4,312.34	3,674.65	2,611.56	4,430.45	2,751.19	1,386.87	1,041.15	1,092.59
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	3,060.00	4,320.00	3,690.00	2,625.00	4,455.00	2,790.00	1,395.00	1,080.00	1,125.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	3,060.00	4,320.00	3,690.00	2,655.00	4,455.00	2,790.00	1,395.00	1,080.00	1,125.00	2,790.00

	1.3.1 POLIPROPILENO	0.00107 KG											
	NECESIDADES BRUTAS			77.84	605.97	969.75	1,328.49	1,126.73	803.09	1,367.73	849.56	429.74	326.89	342.84
	DISPONIBILIDAD		360.00	782.16	176.29	42.54	19.04	18.31	25.22	7.49	13.91	34.17	22.28	39.44
NIVEL 2	RECEPCIONES PROGRAMADAS			500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS			0.00	0.00	612.46	1,285.96	1,105.69	784.78	1,342.51	841.09	415.83	292.72	320.56
	RECEPCION PEDIDOS PLANIFICADOS			0.00	0.00	855.00	1,305.00	1,125.00	810.00	1,350.00	855.00	450.00	315.00	360.00
	LANZAMIENTO PEDIDOS PLANIFICADOS			0.00	0.00	855.00	1,305.00	1,125.00	810.00	1,350.00	855.00	450.00	315.00	360.00
	1.3.2 COLORANTE	0.0000170 KG												
	NECESIDADES BRUTAS			1.24	9.63	15.71	21.11	17.89	12.76	21.73	13.48	6.83	5.19	5.45
	DISPONIBILIDAD		50.00	48.76	39.14	23.43	2.32	29.44	16.68	39.95	26.46	19.64	14.44	9.00
NIVEL 2	RECEPCIONES PROGRAMADAS			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS			0.00	0.00	0.00	0.00	15.56	0.00	6.05	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS			0.00	0.00	0.00	0.00	45.00	0.00	45.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS			0.00	0.00	0.00	45.00	0.00	45.00	0.00	0.00	0.00	0.00	45.00
	1.4.1 POLIETILENO BAJA DENSIDAD	0.0001140 KG												
	NECESIDADES BRUTAS			7.49	64.55	105.34	141.64	119.84	85.56	145.72	90.41	45.79	34.83	36.53
	DISPONIBILIDAD		26.00	17.51	42.96	27.61	21.97	38.13	40.57	26.85	28.44	28.65	38.83	2.30
NIVEL 2	RECEPCIONES PROGRAMADAS			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS			0.00	47.04	92.39	113.03	98.87	49.43	105.15	60.56	16.35	6.17	0.00
	RECEPCION PEDIDOS PLANIFICADOS			0.00	90.00	90.00	135.00	135.00	90.00	135.00	90.00	45.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS			90.00	90.00	135.00	135.00	90.00	135.00	90.00	45.00	45.00	0.00	90.00
	1.4.2 COLORANTE	0.0000015 KG												
	NECESIDADES BRUTAS			0.12	1.02	1.66	2.23	1.89	1.35	2.30	1.43	0.72	0.55	0.58
	DISPONIBILIDAD		26.00	27.88	26.86	25.20	22.96	21.07	19.72	17.42	15.99	15.27	14.72	14.14
NIVEL 2	RECEPCIONES PROGRAMADAS			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.1.3.1 POLIETILENO	0.0006000 KG												
	NECESIDADES BRUTAS			0.00	308.35	554.44	744.89	631.28	450.33	766.95	476.04	240.97	183.30	192.28
	DISPONIBILIDAD		90.00	90.00	6.65	0.00	20.05	18.89	18.47	18.82	35.68	19.70	16.40	4.10
NIVEL 3	RECEPCIONES PROGRAMADAS			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS			0.00	218.35	585.00	744.95	611.20	431.53	748.46	459.32	205.30	193.60	175.89
	RECEPCION PEDIDOS PLANIFICADOS			0.00	225.00	585.00	765.00	630.00	450.00	765.00	495.00	225.00	180.00	180.00
	LANZAMIENTO PEDIDOS PLANIFICADOS			225.00	585.00	765.00	630.00	450.00	765.00	495.00	225.00	180.00	180.00	495.00
	1.1.4.1 POLIACETAL NATURAL	0.0001760 KG												
	NECESIDADES BRUTAS			0.00	65.88	167.09	211.07	178.85	127.59	217.30	134.82	68.28	51.94	54.47
	DISPONIBILIDAD		56.00	56.00	35.14	13.06	28.98	28.12	35.83	43.23	43.41	20.13	13.19	3.72
NIVEL 3	RECEPCIONES PROGRAMADAS			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS			0.00	9.86	121.96	199.02	151.88	99.47	181.77	91.59	24.87	31.81	41.28
	RECEPCION PEDIDOS PLANIFICADOS			0.00	45.00	135.00	225.00	180.00	135.00	225.00	135.00	45.00	45.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS			45.00	135.00	225.00	180.00	135.00	225.00	135.00	45.00	45.00	45.00	135.00



	AZUL 1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	lot												
	Ft	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	It	0	0	0	0	0	0	0	0	0	0	0	0
	MPS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	1.AZUL 1												
	NECESIDADES BRUTAS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	RECEPCION PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	LANZAMIENTO PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	1.1REPUESTO												
	NECESIDADES BRUTAS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	RECEPCION PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	LANZAMIENTO PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	1.2 BARRIL												
	NECESIDADES BRUTAS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	RECEPCION PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	LANZAMIENTO PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	1.3 TAPA												
	NECESIDADES BRUTAS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	RECEPCION PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	LANZAMIENTO PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	1.4 BOTON												
	NECESIDADES BRUTAS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	RECEPCION PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	LANZAMIENTO PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,099,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS	647	530	563	916	1,227	1,037	738	1,255	777	393	298	312
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	647	530	563	916	1,227	1,037	738	1,255	777	393	298	312
	RECEPCION PEDIDOS PLANIFICADOS	647	530	563	916	1,227	1,037	738	1,255	777	393	298	312
	LANZAMIENTO PEDIDOS PLANIFICADOS	647	530	563	916	1,227	1,037	738	1,255	777	393	298	312

	1.0 CAJILLA												
	NECESIDADES BRUTAS	32,333	28,479	28,126	45,783	61,363	61,873	36,919	62,734	39,836	19,625	14,697	15,592
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	32,333	28,479	28,126	45,783	61,363	61,873	36,919	62,734	39,836	19,625	14,697	15,592
	RECEPCION PEDIDOS PLANIFICADOS	32,333	28,479	28,126	45,783	61,363	61,873	36,919	62,734	39,836	19,625	14,697	15,592
	LANZAMIENTO PEDIDOS PLANIFICADOS	32,333	28,479	28,126	45,783	61,363	61,873	36,919	62,734	39,836	19,625	14,697	15,592
	1.1.1 PUNTO												
	NECESIDADES BRUTAS	775,985	635,492	675,017	1,098,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	DISPONIBILIDAD	4,452	18,960	18,943	20,148	22,439	2,496	16,437	18,814	3,741	7,736	200	983
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	770,648	631,040	656,057	1,079,854	1,452,561	1,222,504	893,663	1,488,188	921,259	467,264	349,600	374,017
	RECEPCION PEDIDOS PLANIFICADOS	775,000	650,000	675,000	1,100,000	1,475,000	1,225,000	900,000	1,500,000	925,000	475,000	350,000	375,000
	LANZAMIENTO PEDIDOS PLANIFICADOS	675,000	1,100,000	1,475,000	1,225,000	900,000	1,500,000	925,000	475,000	350,000	375,000	0	0
	1.1.2 TINTA												
	NECESIDADES BRUTAS	248.32	203.36	216.01	351.62	471.27	398.38	283.54	481.80	298.26	150.72	114.41	119.75
	DISPONIBILIDAD	41.23	37.87	21.86	70.25	99.09	0.40	17.06	36.26	37.00	86.26	71.86	52.11
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	155.76	162.13	178.14	329.75	401.02	299.40	282.94	464.74	283.00	113.72	28.14	47.89
	RECEPCION PEDIDOS PLANIFICADOS	200.00	200.00	200.00	400.00	500.00	300.00	300.00	500.00	300.00	200.00	100.00	100.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	200.00	400.00	500.00	300.00	300.00	500.00	300.00	200.00	100.00	100.00	0.00	0.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS	775,985	635,492	675,017	1,098,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	775,985	635,492	675,017	1,098,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	RECEPCION PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,098,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	LANZAMIENTO PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,098,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS	775,985	635,492	675,017	1,098,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	775,985	635,492	675,017	1,098,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	RECEPCION PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,098,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	LANZAMIENTO PEDIDOS PLANIFICADOS	775,985	635,492	675,017	1,098,798	1,472,706	1,244,943	886,059	1,505,623	932,073	471,005	357,536	374,217
	1.2.1 POLIESTIRENO												
	NECESIDADES BRUTAS	2,715.95	2,224.22	2,362.56	3,845.79	5,154.47	4,357.30	3,101.21	5,269.68	3,262.25	1,648.52	1,251.37	1,309.76
	DISPONIBILIDAD	25.46	7.24	29.68	6.66	29.41	37.11	40.91	36.22	13.97	30.45	39.08	34.32
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	2,673.54	2,197.76	2,355.32	3,810.12	5,145.59	4,327.89	3,084.08	5,228.76	3,228.03	1,634.55	1,220.92	1,275.68
	RECEPCION PEDIDOS PLANIFICADOS	2,700.00	2,205.00	2,385.00	3,825.00	5,175.00	4,365.00	3,105.00	5,265.00	3,240.00	1,665.00	1,260.00	1,305.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	2,205.00	2,385.00	3,825.00	5,175.00	4,365.00	3,105.00	5,265.00	3,240.00	1,665.00	1,260.00	1,305.00	0.00

	1.3.1 POLIPROPILENO												
	NECESIDADES BRUTAS	830.39	679.93	722.27	1,175.71	1,575.80	1,332.09	946.09	1,011.02	997.32	503.09	382.56	400.41
	DISPONIBILIDAD	19.13	14.16	11.59	6.17	5.38	23.28	20.21	28.19	21.67	12.80	35.33	39.92
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	790.87	660.84	709.11	1,163.03	1,569.62	1,326.71	924.79	1,590.81	988.13	482.10	369.67	365.08
	RECEPCION PEDIDOS PLANIFICADOS	810.00	675.00	720.00	1,170.00	1,575.00	1,350.00	945.00	1,620.00	990.00	495.00	405.00	405.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	810.00	675.00	720.00	1,170.00	1,575.00	1,350.00	945.00	1,620.00	990.00	495.00	405.00	405.00

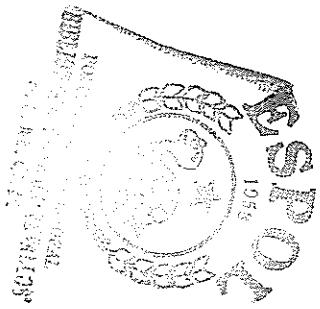
	1.3.2 COLORANTE												
	NECESIDADES BRUTAS	13.19	10.80	11.48	18.68	25.04	21.18	15.05	25.60	15.85	8.01	6.08	6.36
	DISPONIBILIDAD	40.80	30.00	19.53	44.85	19.81	43.65	28.59	2.09	32.14	24.13	18.06	11.69
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	4.20	0.00	0.00	0.16	0.00	1.35	0.00	0.00	12.69	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	45.00	0.00	0.00	45.00	0.00	45.00	0.00	0.00	45.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	45.00	0.00	45.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00

	1.4.1 POLIETILENO BAJA DENSIDAD												
	NECESIDADES BRUTAS	88.46	72.45	76.95	125.26	167.99	141.92	101.01	171.84	106.28	53.69	40.76	42.46
	DISPONIBILIDAD	3.84	21.39	34.44	44.18	11.29	4.36	39.35	1.71	30.46	21.70	28.00	28.34
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	66.16	68.61	55.56	90.82	123.71	130.64	96.65	133.29	104.54	23.24	10.66	16.66
	RECEPCION PEDIDOS PLANIFICADOS	90.00	90.00	90.00	135.00	135.00	135.00	135.00	135.00	135.00	45.00	45.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	90.00	90.00	135.00	135.00	135.00	135.00	135.00	135.00	45.00	45.00	45.00	0.00

	1.4.2 COLORANTE												
	NECESIDADES BRUTAS	1.40	1.14	1.22	1.98	2.65	2.24	1.59	2.71	1.68	0.85	0.64	0.67
	DISPONIBILIDAD	12.74	11.60	10.38	8.41	5.76	3.52	1.92	44.21	42.53	41.88	41.04	40.37
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

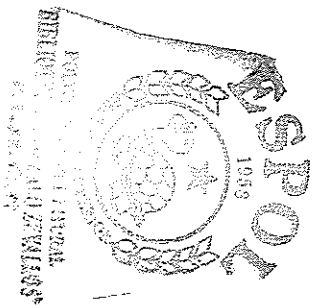
	1.1.3.1 POLIETILENO												
	NECESIDADES BRUTAS	466.59	381.29	405.01	659.26	883.62	746.97	531.64	903.37	559.24	282.60	214.62	224.53
	DISPONIBILIDAD	32.56	9.28	6.25	17.97	28.35	41.39	42.75	31.38	3.13	25.53	25.01	14.48
NIVEL 3	RECEPCIONES PROGRAMADAS	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	10.00	12.00
	NECESIDADES NETAS	462.44	350.74	398.75	657.03	870.65	723.61	497.25	888.82	536.87	269.47	198.99	210.52
	RECEPCION PEDIDOS PLANIFICADOS	495.00	360.00	405.00	675.00	900.00	765.00	540.00	900.00	540.00	315.00	225.00	225.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	360.00	405.00	675.00	900.00	765.00	540.00	900.00	540.00	315.00	225.00	225.00	0.00

	1.1.4.1 POLIACETAL NATURAL												
	NECESIDADES BRUTAS	131.92	108.03	114.75	186.80	250.39	211.64	150.63	255.90	158.45	80.07	60.78	63.62
	DISPONIBILIDAD	5.81	30.77	3.02	37.22	6.59	14.22	38.59	42.64	10.19	10.12	28.33	42.72
NIVEL 3	RECEPCIONES PROGRAMADAS	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00
	NECESIDADES NETAS	129.19	104.23	86.98	187.78	218.14	210.78	143.41	227.36	124.81	79.88	61.67	47.25
	RECEPCION PEDIDOS PLANIFICADOS	135.00	135.00	90.00	225.00	225.00	225.00	180.00	270.00	135.00	90.00	90.00	90.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	135.00	90.00	225.00	225.00	225.00	180.00	270.00	135.00	90.00	90.00	90.00	0.00

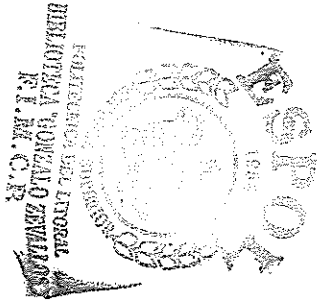


APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

	NEGRO1	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
	lo:	385,305											
	Ft		62,450	1,053,273	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	It		322,855	0	0	0	0	0	0	0	0	0	0
	MPS		0	730,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	1.NEGRO 1												
	NECESIDADES BRUTAS		0	730,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	730,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	RECEPCION PEDIDOS PLANIFICADOS		0	730,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	730,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	1.1REPUESTO												
	NECESIDADES BRUTAS		0	730,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	DISPONIBILIDAD	69,000	69,000	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	661,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	RECEPCION PEDIDOS PLANIFICADOS		0	661,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	661,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	1.2 BARRIL												
	NECESIDADES BRUTAS		0	730,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	730,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	RECEPCION PEDIDOS PLANIFICADOS		0	730,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	730,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	1.3 TAPA												
	NECESIDADES BRUTAS		0	730,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	DISPONIBILIDAD	60,000	60,000	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	670,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	RECEPCION PEDIDOS PLANIFICADOS		0	670,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	670,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	1.4 BOTON												
	NECESIDADES BRUTAS		0	730,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	DISPONIBILIDAD	47,000	47,000	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	683,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	RECEPCION PEDIDOS PLANIFICADOS		0	683,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	683,418	769,978	1,139,598	623,933	499,416	774,195	671,759	291,069	306,494	212,428
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS		0	609	641	949	520	408	645	476	243	255	177
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	609	641	949	520	408	645	476	243	255	177
	RECEPCION PEDIDOS PLANIFICADOS		0	609	641	949	520	408	645	476	243	255	177
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	609	641	949	520	408	645	476	243	255	177



	1.0 CAJILLA												
	NECESIDADES BRUTAS												
NIVEL 1	DISPONIBILIDAD		0	30,434	32,041	47,441	25,897	20,392	32,259	23,823	12,128	12,771	6,851
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS		0	30,434	32,041	47,441	25,897	20,392	32,259	23,823	12,128	12,771	6,851
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	30,434	32,041	47,441	25,897	20,392	32,259	23,823	12,128	12,771	6,851
	1.1.1 PUNTO												
	NECESIDADES BRUTAS												
NIVEL 2	DISPONIBILIDAD	320,000	320,000	841,418	766,978	1,139,696	623,933	489,416	774,195	571,758	291,069	306,494	212,428
	RECEPCIONES PROGRAMADAS		0	3,582	9,604	21,008	22,075	7,660	8,464	11,706	20,057	14,143	1,715
	NECESIDADES NETAS		0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS		0	321,418	765,396	1,120,692	602,925	487,340	766,636	563,264	279,363	295,857	198,285
	LANZAMIENTO PEDIDOS PLANIFICADOS	325,000	0	325,000	775,000	1,150,000	625,000	475,000	775,000	575,000	300,000	300,000	200,000
			775,000	1,150,000	625,000	475,000	775,000	675,000	300,000	300,000	200,000	775,000	75,000
	1.1.2 TINTA	0.00032 lt											
	NECESIDADES BRUTAS												
NIVEL 2	DISPONIBILIDAD	78.00	0.00	205.26	246.07	364.36	199.66	156.61	247.74	182.99	93.14	98.08	67.98
	RECEPCIONES PROGRAMADAS		78.00	70.76	24.67	80.32	60.66	4.05	66.31	73.35	90.20	82.13	14.15
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	129.26	175.33	339.69	139.34	95.95	243.69	129.65	19.80	17.97	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	200.00	0.00	200.00	200.00	400.00	200.00	100.00	300.00	200.00	100.00	100.00	0.00
			400.00	200.00	100.00	300.00	200.00	100.00	100.00	0.00	300.00	0.00	400.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS												
NIVEL 2	DISPONIBILIDAD		0	841,418	766,978	1,139,696	623,933	489,416	774,195	571,758	291,069	306,494	212,428
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS		0	841,418	766,978	1,139,696	623,933	489,416	774,195	571,758	291,069	306,494	212,428
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	841,418	766,978	1,139,696	623,933	489,416	774,195	571,758	291,069	306,494	212,428
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS												
NIVEL 2	DISPONIBILIDAD		0	841,418	766,978	1,139,696	623,933	489,416	774,195	571,758	291,069	306,494	212,428
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS		0	841,418	766,978	1,139,696	623,933	489,416	774,195	571,758	291,069	306,494	212,428
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	841,418	766,978	1,139,696	623,933	489,416	774,195	571,758	291,069	306,494	212,428
	1.2.1 POLIESTIRENO	0.0035 KG											
	NECESIDADES BRUTAS												
NIVEL 2	DISPONIBILIDAD		0.00	2,558.46	2,681.42	3,985.09	2,183.76	1,712.96	2,709.68	2,001.15	1,018.74	1,072.73	743.50
	RECEPCIONES PROGRAMADAS	320.00	320.00	13.54	22.11	42.03	18.26	16.31	5.83	29.47	0.73	8.00	29.50
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	2,238.46	2,677.89	3,962.97	2,141.74	1,684.69	2,694.37	1,993.53	989.27	1,072.00	735.50
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	2,250.00	2,700.00	4,005.00	2,160.00	1,710.00	2,700.00	2,025.00	990.00	1,080.00	765.00
			2,250.00	2,700.00	4,005.00	2,160.00	1,710.00	2,700.00	2,025.00	990.00	1,080.00	765.00	3,855.00



	1.3.1 POLIPROPILENO	0.00107 KG										
	NECESIDADES BRUTAS		0.00	717.35	822.91	1,218.30	667.61	523.67	828.39	611.78	311.44	327.85	227.30
	DISPONIBILIDAD		0.00	2.65	34.65	31.65	39.04	10.27	39.88	10.10	13.66	0.70	43.40
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	717.35	820.16	1,183.45	628.58	464.73	818.12	674.90	301.35	314.30	226.60
	RECEPCION PEDIDOS PLANIFICADOS		0.00	720.00	855.00	1,215.00	675.00	495.00	855.00	685.00	315.00	315.00	270.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	720.00	855.00	1,215.00	675.00	495.00	855.00	685.00	315.00	315.00	270.00

	1.3.2 COLORANTE	0.0000170 KG										
	NECESIDADES BRUTAS		0.00	11.40	13.07	19.36	10.61	8.32	13.16	9.72	4.95	5.21	3.61
	DISPONIBILIDAD		0.00	33.60	20.53	1.17	36.87	27.25	14.09	4.37	44.42	39.21	35.60
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	11.40	0.00	0.00	9.43	0.00	0.00	0.00	0.58	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		45.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00

	1.4.1 POLIETILENO BAJA DENSIDAD	0.0001140 KG										
	NECESIDADES BRUTAS		0.00	77.91	97.66	129.80	71.13	55.78	88.26	65.18	35.18	34.94	24.22
	DISPONIBILIDAD		0.00	12.09	14.43	10.63	38.50	27.71	29.45	9.27	21.08	31.14	6.93
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	77.91	75.57	116.37	51.50	17.29	60.55	35.73	23.92	13.86	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	90.00	90.00	135.00	90.00	45.00	90.00	45.00	45.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		90.00	90.00	135.00	90.00	45.00	90.00	45.00	45.00	45.00	0.00	90.00

	1.4.2 COLORANTE	0.00 KG										
	NECESIDADES BRUTAS		0.00	1.23	1.38	2.05	1.12	0.88	1.39	1.03	0.52	0.55	0.38
	DISPONIBILIDAD	0.00	0.00	43.77	42.39	40.34	39.21	38.33	36.94	35.91	35.39	34.83	34.45
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	1.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO	0.0006000 KG										
	NECESIDADES BRUTAS		0.00	384.85	461.39	693.16	374.36	293.65	464.62	343.06	174.64	183.90	127.48
	DISPONIBILIDAD		0.00	20.15	9.76	0.60	31.25	7.60	39.09	10.02	15.38	11.48	18.03
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
	NECESIDADES NETAS		0.00	364.85	441.24	674.40	373.75	292.40	456.92	304.98	164.62	168.51	110.97
	RECEPCION PEDIDOS PLANIFICADOS		0.00	405.00	450.00	675.00	405.00	270.00	495.00	315.00	180.00	180.00	135.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		405.00	405.00	270.00	495.00	315.00	180.00	180.00	135.00	450.00	450.00	45.00

	1.1.4.1 POLIACETAL NATURAL	0.0001700 KG										
	NECESIDADES BRUTAS		0.00	109.04	130.73	193.66	105.97	83.20	131.61	97.20	49.46	52.10	36.11
	DISPONIBILIDAD		0.00	25.96	30.23	16.67	0.60	7.40	10.79	3.59	44.11	37.00	0.89
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	109.04	104.77	163.33	89.40	82.00	124.21	93.41	45.89	8.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	135.00	135.00	180.00	90.00	90.00	135.00	90.00	90.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		180.00	90.00	90.00	135.00	90.00	90.00	45.00	0.00	135.00	135.00	45.00

	NEGRO1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	lot												
	Ft	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	It	0	0	0	0	0	0	0	0	0	0	0	0
	MPS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	1.NEGRO 1												
	NECESIDADES BRUTAS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	RECEPCION PEDIDOS PLANIFICADOS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	LANZAMIENTO PEDIDOS PLANIFICADOS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	1.1REPUESTO												
	NECESIDADES BRUTAS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	RECEPCION PEDIDOS PLANIFICADOS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	LANZAMIENTO PEDIDOS PLANIFICADOS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	1.2 BARRIL												
	NECESIDADES BRUTAS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	RECEPCION PEDIDOS PLANIFICADOS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	LANZAMIENTO PEDIDOS PLANIFICADOS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	1.3 TAPA												
	NECESIDADES BRUTAS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	RECEPCION PEDIDOS PLANIFICADOS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	LANZAMIENTO PEDIDOS PLANIFICADOS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	1.4 BOTON												
	NECESIDADES BRUTAS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	RECEPCION PEDIDOS PLANIFICADOS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	LANZAMIENTO PEDIDOS PLANIFICADOS	767,372	74,792	1,267,886	916,883	1,352,847	739,526	578,710	913,331	672,997	341,859	359,207	248,448
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS	631	62	1,048	763	1,127	616	482	761	561	285	299	207
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	631	62	1,048	763	1,127	616	482	761	561	285	299	207
	RECEPCION PEDIDOS PLANIFICADOS	631	62	1,048	763	1,127	616	482	761	561	285	299	207
	LANZAMIENTO PEDIDOS PLANIFICADOS	631	62	1,048	763	1,127	616	482	761	561	285	299	207

	1.0 CAJILLA												
	NECESIDADES BRUTAS												
	DISPONIBILIDAD	31,557	3,116	52,412	38,166	56,369	30,814	24,113	38,055	28,042	14,244	14,967	10,352
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS	31,557	3,116	52,412	38,166	56,369	30,814	24,113	38,055	28,042	14,244	14,967	10,352
	LANZAMIENTO PEDIDOS PLANIFICADOS	31,557	3,116	52,412	38,166	56,369	30,814	24,113	38,055	28,042	14,244	14,967	10,352
	1.1.1 PUNTO												
	NECESIDADES BRUTAS												
	DISPONIBILIDAD	757,372	74,782	1,257,886	915,993	1,352,847	739,526	578,710	913,331	672,997	341,956	359,207	248,448
NIVEL 2	RECEPCIONES PROGRAMADAS	18,343	16,662	11,675	20,093	17,646	3,318	24,610	11,279	13,282	21,424	12,218	13,769
	NECESIDADES NETAS	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS	768,657	88,438	1,238,328	864,307	1,332,184	721,681	576,390	888,721	661,718	328,676	337,764	236,231
	LANZAMIENTO PEDIDOS PLANIFICADOS	776,000	76,000	1,250,000	925,000	1,350,000	725,000	600,000	900,000	675,000	350,000	350,000	250,000
		1,350,000	926,000	1,350,000	725,000	600,000	900,000	675,000	350,000	350,000	250,000	0	0
	1.1.2 TINTA												
	NECESIDADES BRUTAS												
	DISPONIBILIDAD	242.36	23.93	402.52	293.11	432.91	236.65	185.19	292.27	215.36	109.39	114.95	79.50
NIVEL 2	RECEPCIONES PROGRAMADAS	71.79	47.66	45.34	62.22	19.31	82.66	97.48	6.21	89.85	89.46	65.51	66.01
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	226.21	0.00	354.66	247.78	380.89	217.34	102.62	194.79	210.16	19.84	34.49	13.99
	LANZAMIENTO PEDIDOS PLANIFICADOS	300.00	0.00	400.00	300.00	400.00	300.00	200.00	200.00	300.00	100.00	100.00	100.00
		300.00	400.00	300.00	200.00	200.00	300.00	100.00	100.00	100.00	0.00	0.00	0.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS												
	DISPONIBILIDAD	757,372	74,782	1,257,886	915,993	1,352,847	739,526	578,710	913,331	672,997	341,956	359,207	248,448
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS	757,372	74,782	1,257,886	915,993	1,352,847	739,526	578,710	913,331	672,997	341,956	359,207	248,448
	LANZAMIENTO PEDIDOS PLANIFICADOS	757,372	74,782	1,257,886	915,993	1,352,847	739,526	578,710	913,331	672,997	341,956	359,207	248,448
		757,372	74,782	1,257,886	915,993	1,352,847	739,526	578,710	913,331	672,997	341,956	359,207	248,448
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS												
	DISPONIBILIDAD	757,372	74,782	1,257,886	915,993	1,352,847	739,526	578,710	913,331	672,997	341,956	359,207	248,448
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS	757,372	74,782	1,257,886	915,993	1,352,847	739,526	578,710	913,331	672,997	341,956	359,207	248,448
	LANZAMIENTO PEDIDOS PLANIFICADOS	757,372	74,782	1,257,886	915,993	1,352,847	739,526	578,710	913,331	672,997	341,956	359,207	248,448
		757,372	74,782	1,257,886	915,993	1,352,847	739,526	578,710	913,331	672,997	341,956	359,207	248,448
	1.2.1 POLIESTIRENO												
	NECESIDADES BRUTAS												
	DISPONIBILIDAD	2,650.60	281.74	4,402.60	3,205.94	4,734.96	2,588.34	2,025.48	3,196.66	2,355.49	1,196.50	1,257.23	869.57
NIVEL 2	RECEPCIONES PROGRAMADAS	33.70	41.97	4.36	38.42	28.46	5.12	4.63	2.97	32.49	6.98	8.76	39.19
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	2,621.30	228.03	4,398.24	3,201.56	4,696.54	2,659.89	2,020.37	3,192.03	2,352.51	1,184.02	1,251.24	860.91
	LANZAMIENTO PEDIDOS PLANIFICADOS	2,655.00	270.00	4,395.00	3,240.00	4,725.00	2,685.00	2,025.00	3,195.00	2,385.00	1,170.00	1,260.00	900.00
		270.00	4,395.00	3,240.00	4,725.00	2,685.00	2,025.00	3,195.00	2,385.00	1,170.00	1,260.00	900.00	0.00

NIVEL 2	1.3.1 POLIPROPILENO												
	NECESIDADES BRUTAS	810.39	90.02	1,345.94	990.10	1,447.55	701.20	619.22	977.20	720.11	385.79	384.35	285.84
	DISPONIBILIDAD	43.02	8.00	12.06	21.96	14.42	33.12	43.00	11.64	11.53	8.74	26.39	30.55
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	766.98	37.00	1,337.94	968.04	1,425.68	776.08	586.10	933.36	708.47	364.28	378.61	239.45
	RECEPCION PEDIDOS PLANIFICADOS	810.00	45.00	1,350.00	990.00	1,440.00	810.00	630.00	945.00	720.00	360.00	405.00	270.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	810.00	45.00	1,350.00	990.00	1,440.00	810.00	630.00	945.00	720.00	360.00	405.00	270.00

NIVEL 2	1.3.2 COLORANTE												
	NECESIDADES BRUTAS	12.89	1.27	21.36	15.57	23.00	12.67	9.84	16.53	11.44	6.81	6.11	4.22
	DISPONIBILIDAD	22.72	21.45	0.07	29.49	6.50	38.92	29.09	13.56	2.12	41.31	35.20	30.98
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	16.51	0.00	6.08	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	45.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	45.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00

NIVEL 2	1.4.1 POLIETILENO BAJA DENSIDAD												
	NECESIDADES BRUTAS	89.34	9.53	143.40	104.42	154.22	84.31	65.97	104.12	76.72	39.97	40.95	28.32
	DISPONIBILIDAD	10.59	2.06	39.66	24.24	8.02	10.71	34.74	20.62	33.90	39.92	43.97	15.65
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	79.41	0.00	141.34	85.76	129.98	79.30	55.26	89.36	56.10	5.08	1.03	0.00
	RECEPCION PEDIDOS PLANIFICADOS	90.00	0.00	180.00	90.00	135.00	90.00	90.00	90.00	90.00	45.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	180.00	90.00	135.00	90.00	90.00	90.00	90.00	90.00	45.00	45.00	0.00

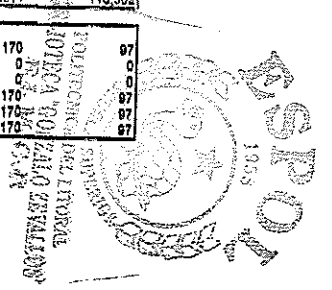
NIVEL 2	1.4.2 COLORANTE												
	NECESIDADES BRUTAS	1.36	0.13	2.26	1.65	2.44	1.33	1.04	1.64	1.21	0.62	0.65	0.45
	DISPONIBILIDAD	33.69	32.95	30.69	29.04	26.61	26.27	24.23	22.59	21.38	20.76	20.12	19.67
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NIVEL 3	1.1.3.1 POLIETILENO												
	NECESIDADES BRUTAS	454.42	44.67	764.73	549.59	811.71	443.72	347.23	549.00	403.80	205.11	215.62	149.07
	DISPONIBILIDAD	11.61	8.74	16.01	0.42	37.71	38.69	41.77	24.77	15.97	24.85	22.33	40.26
	RECEPCIONES PROGRAMADAS	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00
	NECESIDADES NETAS	439.30	36.26	749.69	539.59	817.29	415.01	318.23	515.23	389.03	180.15	202.67	136.74
	RECEPCION PEDIDOS PLANIFICADOS	450.00	45.00	765.00	540.00	855.00	450.00	360.00	540.00	405.00	225.00	225.00	180.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	765.00	540.00	855.00	450.00	360.00	540.00	405.00	225.00	225.00	180.00	0.00	0.00

NIVEL 3	1.1.4.1 POLIACETAL NATURAL												
	NECESIDADES BRUTAS	126.76	12.71	213.64	155.72	230.99	126.72	99.39	156.27	114.41	59.12	61.07	42.34
	DISPONIBILIDAD	8.14	39.43	44.59	19.87	9.88	13.16	42.78	14.52	28.11	2.99	20.93	11.59
	RECEPCIONES PROGRAMADAS	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00
	NECESIDADES NETAS	128.86	8.57	160.42	116.13	216.12	121.84	92.22	120.48	108.89	42.01	59.07	35.31
	RECEPCION PEDIDOS PLANIFICADOS	135.00	45.00	225.00	135.00	225.00	135.00	135.00	135.00	135.00	45.00	90.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	225.00	135.00	225.00	135.00	135.00	135.00	135.00	45.00	90.00	45.00	0.00	0.00

APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

	ROJO1	Actual	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
	Io:	165,131											
	Fl		49,573	605,827	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	It		115,558	0	0	0	0	0	0	0	0	0	0
	MPS		0	450,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	1.ROJO												
	NECESIDADES BRUTAS		0	450,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	450,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	RECEPCION PEDIDOS PLANIFICADOS		0	450,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	450,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	1.1REPUESTO												
	NECESIDADES BRUTAS		0	450,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	DISPONIBILIDAD	53,500	53,500	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	396,869	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	RECEPCION PEDIDOS PLANIFICADOS		0	396,869	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	396,869	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	1.2 BARRIL												
	NECESIDADES BRUTAS		0	450,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	450,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	RECEPCION PEDIDOS PLANIFICADOS		0	450,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	450,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	1.3 TAPA												
	NECESIDADES BRUTAS		0	450,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	DISPONIBILIDAD	85,000	85,000	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	365,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	RECEPCION PEDIDOS PLANIFICADOS		0	365,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	365,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	1.4 BOTON												
	NECESIDADES BRUTAS		0	450,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	DISPONIBILIDAD	24,000	24,000	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	426,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	RECEPCION PEDIDOS PLANIFICADOS		0	426,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	426,369	496,494	860,619	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS		0	375	414	717	587	309	621	370	134	170	97
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	375	414	717	587	309	621	370	134	170	97
	RECEPCION PEDIDOS PLANIFICADOS		0	375	414	717	587	309	621	370	134	170	97
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	375	414	717	587	309	621	370	134	170	97



	1.0 CAJILLA											
	NECESIDADES BRUTAS		0	19,765	20,697	35,867	29,363	15,465	31,036	19,466	6,662	6,492	4,854
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	19,765	20,697	35,867	29,363	15,465	31,036	19,466	6,662	6,492	4,854
	RECEPCION PEDIDOS PLANIFICADOS		0	19,765	20,697	35,867	29,363	15,465	31,036	19,466	6,662	6,492	4,854
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	19,765	20,697	35,867	29,363	15,465	31,036	19,466	6,662	6,492	4,854

	1.1.1 PUNTO											
	NECESIDADES BRUTAS		0	396,869	496,494	860,819	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	DISPONIBILIDAD	289,000	289,000	17,131	20,637	9,818	5,118	8,946	14,079	20,369	9,999	6,185	14,684
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	107,869	479,363	840,182	694,682	366,082	735,921	429,631	140,001	193,615	110,318
	RECEPCION PEDIDOS PLANIFICADOS		0	125,000	500,000	850,000	700,000	375,000	750,000	450,000	150,000	200,000	125,000
	LANZAMIENTO PEDIDOS PLANIFICADOS		600,000	850,000	700,000	375,000	750,000	450,000	150,000	200,000	125,000	275,000	50,000

	1.1.2 TINTA	0.00032 R										
	NECESIDADES BRUTAS		0.00	127.00	159.00	275.40	225.50	118.77	238.38	141.99	51.32	65.22	37.28
	DISPONIBILIDAD	60.00	60.00	33.00	74.12	98.66	73.16	54.38	16.03	74.04	22.72	57.50	20.22
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	67.00	125.88	201.34	126.84	45.62	183.97	125.96	0.00	42.50	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	100.00	200.00	300.00	200.00	100.00	200.00	200.00	0.00	100.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		200.00	300.00	200.00	100.00	200.00	200.00	0.00	100.00	0.00	100.00	0.00

	1.1.3 TUBO											
	NECESIDADES BRUTAS		0	396,869	496,494	860,819	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	396,869	496,494	860,819	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	RECEPCION PEDIDOS PLANIFICADOS		0	396,869	496,494	860,819	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	396,869	496,494	860,819	704,701	371,169	744,869	443,710	160,370	203,814	116,502

	1.1.4 SOPORTE											
	NECESIDADES BRUTAS		0	396,869	496,494	860,819	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	396,869	496,494	860,819	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	RECEPCION PEDIDOS PLANIFICADOS		0	396,869	496,494	860,819	704,701	371,169	744,869	443,710	160,370	203,814	116,502
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	396,869	496,494	860,819	704,701	371,169	744,869	443,710	160,370	203,814	116,502

	1.2.1 POLIESTIRENO	0.0035 KG										
	NECESIDADES BRUTAS		0.00	1,575.29	1,737.73	3,012.87	2,469.45	1,299.09	2,607.04	1,552.99	561.30	713.35	407.76
	DISPONIBILIDAD		0.00	43.71	16.99	18.11	20.66	32.67	35.63	12.64	36.25	42.90	40.14
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	1,575.29	1,694.02	2,999.89	2,448.34	1,272.43	2,574.47	1,517.46	548.75	677.10	364.86
	RECEPCION PEDIDOS PLANIFICADOS		0.00	1,620.00	1,710.00	3,015.00	2,475.00	1,305.00	2,610.00	1,530.00	585.00	720.00	405.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		1,620.00	1,710.00	3,015.00	2,475.00	1,305.00	2,610.00	1,530.00	585.00	720.00	405.00	945.00

BIBLIOTECA CENTRAL
POLITECNICO GRANCOLOMBIANO

	1.3.1 POLIPROPILENO	0.00107 KG										
	NECESIDADES BRUTAS	0.00	390.94	531.25	921.08	784.03	397.15	797.01	474.77	171.60	218.08	124.66
	DISPONIBILIDAD	0.00	14.06	22.81	1.73	12.70	20.55	33.54	8.77	17.17	24.09	34.44
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	390.94	517.19	899.27	752.30	384.45	776.46	441.23	162.83	200.91	100.56
	RECEPCION PEDIDOS PLANIFICADOS	0.00	405.00	540.00	900.00	765.00	405.00	810.00	450.00	180.00	225.00	135.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	405.00	540.00	900.00	765.00	405.00	810.00	450.00	180.00	225.00	135.00

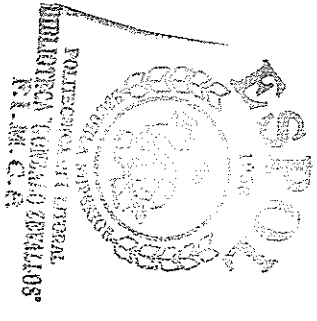
	1.3.2 COLORANTE	0.0000170 KG										
	NECESIDADES BRUTAS	0.00	6.21	8.44	14.63	11.98	6.31	12.66	7.54	2.73	3.46	1.98
	DISPONIBILIDAD	0.00	38.79	30.35	15.71	3.75	42.42	29.76	22.22	19.49	16.03	14.05
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	6.21	0.00	0.00	0.00	2.58	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	45.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.4.1 POLIETILENO BAJA DENSIDAD	0.0001140 KG										
	NECESIDADES BRUTAS	0.00	46.61	66.60	99.13	80.34	42.31	84.92	50.59	18.29	23.23	13.28
	DISPONIBILIDAD	0.00	41.39	29.79	21.66	31.32	34.01	39.10	33.51	15.23	37.00	23.71
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	46.61	15.21	68.34	58.68	10.99	50.90	11.49	0.00	8.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	90.00	45.00	90.00	90.00	45.00	90.00	45.00	0.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	90.00	45.00	90.00	90.00	45.00	90.00	45.00	0.00	45.00	0.00	45.00

	1.4.2 COLORANTE	0.0000018 KG										
	NECESIDADES BRUTAS	0.00	0.77	0.89	1.65	1.27	0.67	1.34	0.80	0.29	0.37	0.21
	DISPONIBILIDAD	0.00	44.23	43.34	41.79	40.52	39.85	38.51	37.71	37.42	37.06	36.85
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO	0.0006000 KG										
	NECESIDADES BRUTAS	0.00	238.12	297.90	516.49	422.92	222.70	446.92	266.29	96.22	122.29	69.90
	DISPONIBILIDAD	0.00	31.88	3.98	27.49	9.07	11.97	15.05	18.82	12.60	25.31	0.41
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	238.12	266.02	512.51	395.33	213.03	434.86	251.18	77.40	109.69	44.60
	RECEPCION PEDIDOS PLANIFICADOS	0.00	270.00	270.00	540.00	405.00	225.00	450.00	270.00	90.00	135.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	270.00	270.00	540.00	405.00	225.00	450.00	270.00	90.00	135.00	45.00	180.00

	1.1.4.1 POLIACETAL NATURAL	0.0001700 KG										
	NECESIDADES BRUTAS	0.00	67.47	84.40	146.34	119.80	63.10	126.63	75.43	27.26	34.65	19.81
	DISPONIBILIDAD	0.00	22.53	28.13	16.79	31.99	13.89	22.26	36.83	9.57	19.92	0.12
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	67.47	61.87	116.21	103.01	31.11	112.74	53.17	0.00	25.08	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	90.00	90.00	135.00	135.00	45.00	135.00	90.00	0.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	90.00	90.00	135.00	135.00	45.00	135.00	90.00	0.00	45.00	0.00	90.00



	ROJO1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	lo:												
	Ft	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	It	0	0	0	0	0	0	0	0	0	0	0	0
	MPS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	1.ROJO												
	NECESIDADES BRUTAS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	RECEPCION PEDIDOS PLANIFICADOS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	LANZAMIENTO PEDIDOS PLANIFICADOS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	1.1REPUESTO												
	NECESIDADES BRUTAS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	RECEPCION PEDIDOS PLANIFICADOS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	LANZAMIENTO PEDIDOS PLANIFICADOS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	1.2 BARRIL												
	NECESIDADES BRUTAS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	RECEPCION PEDIDOS PLANIFICADOS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	LANZAMIENTO PEDIDOS PLANIFICADOS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	1.3 TAPA												
	NECESIDADES BRUTAS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	RECEPCION PEDIDOS PLANIFICADOS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	LANZAMIENTO PEDIDOS PLANIFICADOS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	1.4 BOTON												
	NECESIDADES BRUTAS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	RECEPCION PEDIDOS PLANIFICADOS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	LANZAMIENTO PEDIDOS PLANIFICADOS	278,846	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,863	136,254
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS	232	49	564	493	852	696	366	732	435	157	199	114
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	232	49	564	493	852	696	366	732	435	157	199	114
	RECEPCION PEDIDOS PLANIFICADOS	232	49	564	493	852	696	366	732	435	157	199	114
	LANZAMIENTO PEDIDOS PLANIFICADOS	232	49	564	493	852	696	366	732	435	157	199	114

	1.6 CAJILLA											
	NECESIDADES BRUTAS	11,619	2,428	28,205	24,642	42,618	34,802	18,287	36,613	21,761	7,848	9,953	5,677
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	11,619	2,428	28,205	24,642	42,618	34,802	18,287	36,613	21,761	7,848	9,953	5,677
	RECEPCION PEDIDOS PLANIFICADOS	11,619	2,428	28,205	24,642	42,618	34,802	18,287	36,613	21,761	7,848	9,953	5,677
	LANZAMIENTO PEDIDOS PLANIFICADOS	11,619	2,428	28,205	24,642	42,618	34,802	18,287	36,613	21,761	7,848	9,953	5,677

	1.1.1 PUNTO												
	NECESIDADES BRUTAS	278,845	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,883	136,254
	DISPONIBILIDAD	10,839	2,556	628	9,232	11,451	1,209	12,329	8,609	11,342	22,992	9,129	22,875
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	264,162	47,444	674,372	580,788	1,013,549	833,761	437,872	880,391	513,668	177,008	215,871	127,125
	RECEPCION PEDIDOS PLANIFICADOS	275,000	50,000	675,000	600,000	1,025,000	825,000	450,000	875,000	525,000	200,000	225,000	150,000
	LANZAMIENTO PEDIDOS PLANIFICADOS	675,000	600,000	1,025,000	825,000	450,000	875,000	825,000	200,000	225,000	150,000	0	0

	1.1.2 TINTA												
	NECESIDADES BRUTAS	89.23	18.65	216.62	189.25	327.29	267.28	140.44	281.19	167.13	60.27	76.44	43.60
	DISPONIBILIDAD	30.99	12.34	95.72	6.47	79.18	11.91	71.48	90.27	23.15	62.86	86.44	42.84
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	69.01	0.00	204.28	93.53	320.82	188.09	128.54	209.73	76.85	37.12	13.56	0.00
	RECEPCION PEDIDOS PLANIFICADOS	100.00	0.00	300.00	100.00	400.00	200.00	200.00	300.00	100.00	100.00	100.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	300.00	100.00	400.00	200.00	200.00	300.00	100.00	100.00	100.00	0.00	0.00	0.00

	1.1.3 TUBO												
	NECESIDADES BRUTAS	278,845	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,883	136,254
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	278,845	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,883	136,254
	RECEPCION PEDIDOS PLANIFICADOS	278,845	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,883	136,254
	LANZAMIENTO PEDIDOS PLANIFICADOS	278,845	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,883	136,254

	1.1.4 SOPORTE												
	NECESIDADES BRUTAS	278,845	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,883	136,254
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	278,845	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,883	136,254
	RECEPCION PEDIDOS PLANIFICADOS	278,845	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,883	136,254
	LANZAMIENTO PEDIDOS PLANIFICADOS	278,845	58,282	676,927	591,396	1,022,781	835,243	438,881	878,719	522,267	188,350	238,883	136,254

	1.2.1 POLIESTIRENO												
	NECESIDADES BRUTAS	975.96	203.99	2,369.25	2,069.89	3,578.73	2,923.35	1,536.08	3,075.52	1,827.93	659.22	836.02	476.89
	DISPONIBILIDAD	9.16	30.20	0.65	1.06	21.33	22.95	16.90	1.38	16.45	34.22	6.20	28.31
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	935.02	194.80	2,339.05	2,068.84	3,578.67	2,902.02	1,513.10	3,056.62	1,826.65	640.78	801.80	468.89
	RECEPCION PEDIDOS PLANIFICADOS	945.00	225.00	2,340.00	2,070.00	3,600.00	2,925.00	1,530.00	3,060.00	1,845.00	675.00	810.00	495.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	225.00	2,340.00	2,070.00	3,600.00	2,925.00	1,530.00	3,060.00	1,845.00	675.00	810.00	495.00	0.00

	1.3.1 POLIPROPILENO												
	NECESIDADES BRUTAS	288.36	62.36	724.31	632.79	1,084.38	893.71	469.60	940.23	556.83	201.53	255.59	145.79
	DISPONIBILIDAD	6.07	33.71	29.40	28.60	12.23	19.52	43.92	3.69	29.66	8.33	22.74	11.95
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	263.93	56.29	590.60	603.40	1,067.77	881.48	461.08	936.31	555.14	171.67	247.28	123.05
	RECEPCION PEDIDOS PLANIFICADOS	270.00	90.00	720.00	630.00	1,080.00	900.00	495.00	990.00	585.00	180.00	270.00	135.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	270.00	90.00	720.00	630.00	1,080.00	900.00	495.00	990.00	585.00	180.00	270.00	135.00

	1.3.2 COLORANTE												
	NECESIDADES BRUTAS	4.74	0.99	11.51	10.05	17.39	14.20	7.46	14.94	8.88	3.20	4.06	2.32
	DISPONIBILIDAD	8.31	8.32	41.81	31.75	14.37	0.17	37.71	22.77	13.89	10.69	6.63	4.31
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	3.19	0.00	0.00	0.00	7.29	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.4.1 POLIETILENO BAJA DENSIDAD												
	NECESIDADES BRUTAS	31.79	6.64	77.17	67.42	116.60	95.22	50.03	100.17	59.54	21.47	27.23	15.53
	DISPONIBILIDAD	38.93	30.28	43.11	20.69	39.10	33.89	28.85	18.67	4.13	27.66	0.43	29.90
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	46.89	24.31	95.90	56.12	16.15	71.33	40.87	17.34	0.00	15.10
	RECEPCION PEDIDOS PLANIFICADOS	45.00	0.00	90.00	45.00	135.00	90.00	45.00	90.00	45.00	45.00	0.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	90.00	45.00	135.00	90.00	45.00	90.00	45.00	45.00	0.00	45.00	0.00

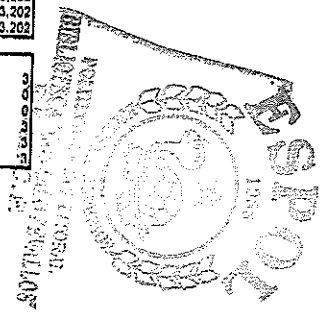
	1.4.2 COLORANTE												
	NECESIDADES BRUTAS	0.60	0.10	1.22	1.06	1.84	1.50	0.79	1.58	0.94	0.34	0.43	0.25
	DISPONIBILIDAD	38.36	38.24	38.02	33.86	32.12	30.61	29.82	28.24	27.30	26.96	26.53	26.28
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO												
	NECESIDADES BRUTAS	187.31	34.97	406.16	354.84	613.67	501.15	263.33	527.23	315.36	113.01	143.32	81.75
	DISPONIBILIDAD	13.10	23.13	21.98	27.14	43.47	37.33	44.00	11.77	13.41	35.40	27.08	35.32
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	166.90	21.87	383.02	332.06	596.53	487.67	226.00	483.23	301.59	99.60	107.92	54.68
	RECEPCION PEDIDOS PLANIFICADOS	180.00	45.00	405.00	360.00	630.00	495.00	270.00	495.00	315.00	135.00	135.00	90.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	45.00	405.00	360.00	630.00	495.00	270.00	495.00	315.00	135.00	135.00	90.00	0.00

	1.1.4.1 POLIACETAL NATURAL												
	NECESIDADES BRUTAS	47.40	9.81	115.08	100.54	173.97	141.99	74.61	149.38	89.78	32.02	40.61	23.16
	DISPONIBILIDAD	42.71	32.90	7.73	42.19	3.32	41.33	11.72	42.33	43.65	11.53	15.02	37.76
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	47.29	0.00	82.27	92.81	131.68	138.67	33.28	137.67	46.46	0.00	29.08	7.24
	RECEPCION PEDIDOS PLANIFICADOS	90.00	0.00	90.00	135.00	135.00	180.00	45.00	180.00	90.00	0.00	45.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	90.00	135.00	135.00	180.00	45.00	180.00	90.00	0.00	45.00	45.00	0.00

APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

	VERDE1	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
	lo:	110,087											
	Pi		45,304	5,103	2,870	0	3,330	58,427	81,963	28,947	19,359	8,316	3,202
	Ii		64,783	59,620	56,750	56,750	53,420	0	0	0	0	0	0
	MPS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	1.VERDE 1												
	NECESIDADES BRUTAS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	1.1REPUESTO												
	NECESIDADES BRUTAS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	1.2 BARRIL												
	NECESIDADES BRUTAS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	1.3 TAPA												
	NECESIDADES BRUTAS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	1.4 BOTON												
	NECESIDADES BRUTAS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS		0	0	0	0	0	4	66	24	16	7	3
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	4	66	24	16	7	3
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	4	66	24	16	7	3
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	4	66	24	16	7	3



	1.5 CAJILLA												
	NECESIDADES BRUTAS		0	0	0	0	0	209	3,415	1,206	807	346	133
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	209	3,415	1,206	807	346	133
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	209	3,415	1,206	807	346	133
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	209	3,415	1,206	807	346	133
	1.1.1 PUNTO												
	NECESIDADES BRUTAS		0	0	0	0	0	5,007	81,863	28,947	19,359	8,316	3,202
	DISPONIBILIDAD		0	0	0	0	0	19,993	13,029	9,082	14,723	6,408	3,206
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	5,007	61,971	15,918	10,277	0	0
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	25,000	75,000	25,000	25,000	0	0
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	25,000	25,000	75,000	25,000	25,000	0	0	25,000	50,000
	1.1.2 TINTA	*0.00032 lt											
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.00	1.60	26.23	9.26	6.19	2.66	1.02
	DISPONIBILIDAD	30.00	30.00	30.00	30.00	30.00	30.00	28.40	2.17	92.91	86.71	84.05	83.03
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.09	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS		0	0	0	0	0	5,007	81,863	28,947	19,359	8,316	3,202
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	5,007	81,863	28,947	19,359	8,316	3,202
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,863	28,947	19,359	8,316	3,202
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,863	28,947	19,359	8,316	3,202
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS		0	0	0	0	0	5,007	81,863	28,947	19,359	8,316	3,202
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	5,007	81,863	28,947	19,359	8,316	3,202
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,863	28,947	19,359	8,316	3,202
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	5,007	81,863	28,947	19,359	8,316	3,202
	1.2.1 POLIESTIRENO	0.0035 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.00	17.53	286.57	101.32	67.76	29.10	11.21
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	0.00	27.47	10.60	44.28	21.53	37.43	26.22
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	17.53	286.40	90.71	23.47	7.67	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	45.00	270.00	135.00	45.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	270.00	135.00	45.00	45.00	0.00	45.00

	1.3.1 POLIPROPILENO	0.00107 KG										
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	5.36	87.70	30.97	20.71	8.90	3.43
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	39.64	41.94	10.97	35.25	26.36	22.93
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	5.36	46.06	0.00	9.76	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	90.00	0.00	45.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	90.00	0.00	45.00	0.00	0.00

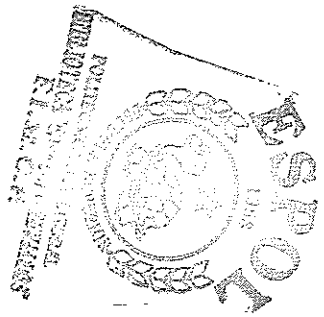
	1.3.2 COLORANTE	0.0000170 KG										
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.09	1.39	0.49	0.33	0.14	0.05
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	44.91	43.52	43.03	42.70	42.56	42.50
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00

	1.4.1 POLIETILENO BAJA DENSIDAD	0.0001140 KG										
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.57	9.34	3.30	2.21	0.95	0.37
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	44.43	35.09	31.79	29.59	28.63	28.27
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00

	1.4.2 COLORANTE	0.0000016 KG										
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.01	0.15	0.05	0.03	0.01	0.01
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	44.99	44.84	44.79	44.76	44.74	44.74
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO	0.0005000 KG										
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.00	3.00	49.18	17.37	11.62	4.99	1.92
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	0.00	42.00	37.82	20.45	9.83	3.84	1.92
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	3.00	7.18	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	45.00	45.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	45.00	0.00	0.00	0.00	0.00	45.00

	1.1.4.1 POLIACETAL NATURAL	0.0001700 KG										
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.85	13.93	4.92	3.29	1.41	0.54
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	43.15	29.21	24.29	21.00	19.59	19.04
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	1.85	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00



	VERDE1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	lo:					0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	Fi	11,829	54,247	6,166	3,419	5	6	7	8	9	10	11	12
	Ii	1	2	3	4								
	MPS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	1.VERDE 1												
	NECESIDADES BRUTAS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	RECEPCION PEDIDOS PLANIFICADOS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	LANZAMIENTO PEDIDOS PLANIFICADOS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	1.1REPUESTO												
	NECESIDADES BRUTAS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	RECEPCION PEDIDOS PLANIFICADOS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	LANZAMIENTO PEDIDOS PLANIFICADOS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	1.2 BARRIL												
	NECESIDADES BRUTAS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	RECEPCION PEDIDOS PLANIFICADOS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	LANZAMIENTO PEDIDOS PLANIFICADOS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	1.3 TAPA												
	NECESIDADES BRUTAS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	RECEPCION PEDIDOS PLANIFICADOS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	LANZAMIENTO PEDIDOS PLANIFICADOS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	1.4 BOTON												
	NECESIDADES BRUTAS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	RECEPCION PEDIDOS PLANIFICADOS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	LANZAMIENTO PEDIDOS PLANIFICADOS	11,829	54,247	6,166	3,419	0	3,947	69,084	99,689	34,072	22,736	9,745	3,745
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS	10	45	5	3	0	3	58	81	28	19	8	3
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	10	45	5	3	0	3	58	81	28	19	8	3
	RECEPCION PEDIDOS PLANIFICADOS	10	45	5	3	0	3	58	81	28	19	8	3
	LANZAMIENTO PEDIDOS PLANIFICADOS	10	45	5	3	0	3	58	81	28	19	8	3

NIVEL 1	1.6 CAJILLA	493	2,260	267	142	0	164	2,879	4,029	1,420	947	406	156
	NECESIDADES BRUTAS	0	0	0	0	0	0	0	0	0	0	0	0
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS	493	2,260	267	142	0	164	2,879	4,029	1,420	947	406	156
	NECESIDADES NETAS	493	2,260	267	142	0	164	2,879	4,029	1,420	947	406	156
	RECEPCION PEDIDOS PLANIFICADOS	493	2,260	267	142	0	164	2,879	4,029	1,420	947	406	156
	LANZAMIENTO PEDIDOS PLANIFICADOS												

NIVEL 2	1.1.1 PUNTO	11,829	54,247	6,166	3,419	0	3,947	69,084	96,689	34,072	22,736	9,745	3,745
	NECESIDADES BRUTAS	16,377	12,130	5,965	2,546	2,546	23,599	4,515	7,825	18,754	21,018	11,273	7,528
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS	8,023	37,870	0	0	0	1,401	45,485	92,175	28,246	3,982	0	0
	NECESIDADES NETAS	25,000	50,000	0	25,000	50,000	25,000	50,000	100,000	46,000	25,000	0	0
	RECEPCION PEDIDOS PLANIFICADOS	0	0	0	25,000	50,000	100,000	48,000	25,000	0	0	0	0
	LANZAMIENTO PEDIDOS PLANIFICADOS												

NIVEL 2	1.1.2 TINTA	3.79	17.38	1.97	1.09	0.00	1.26	22.11	30.94	10.90	7.28	3.12	1.20
	NECESIDADES BRUTAS	70.24	61.88	59.91	58.81	58.81	57.55	35.44	4.50	93.60	86.33	83.21	82.01
	DISPONIBILIDAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.40	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS												

NIVEL 2	1.1.3 TUBO	11,829	54,247	6,166	3,419	0	3,947	69,084	96,689	34,072	22,736	9,745	3,745
	NECESIDADES BRUTAS	0	0	0	0	0	0	0	0	0	0	0	0
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS	11,829	54,247	6,166	3,419	0	3,947	69,084	96,689	34,072	22,736	9,745	3,745
	NECESIDADES NETAS	11,829	54,247	6,166	3,419	0	3,947	69,084	96,689	34,072	22,736	9,745	3,745
	RECEPCION PEDIDOS PLANIFICADOS	11,829	54,247	6,166	3,419	0	3,947	69,084	96,689	34,072	22,736	9,745	3,745
	LANZAMIENTO PEDIDOS PLANIFICADOS												

NIVEL 2	1.1.4 SOPORTE	11,829	54,247	6,166	3,419	0	3,947	69,084	96,689	34,072	22,736	9,745	3,745
	NECESIDADES BRUTAS	0	0	0	0	0	0	0	0	0	0	0	0
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS	11,829	54,247	6,166	3,419	0	3,947	69,084	96,689	34,072	22,736	9,745	3,745
	NECESIDADES NETAS	11,829	54,247	6,166	3,419	0	3,947	69,084	96,689	34,072	22,736	9,745	3,745
	RECEPCION PEDIDOS PLANIFICADOS	11,829	54,247	6,166	3,419	0	3,947	69,084	96,689	34,072	22,736	9,745	3,745
	LANZAMIENTO PEDIDOS PLANIFICADOS												

NIVEL 2	1.2.1 POLIESTIRENO	41.40	189.66	21.58	11.97	0.00	13.81	241.79	338.41	110.25	79.57	34.11	13.11
	NECESIDADES BRUTAS	28.82	19.96	43.38	31.41	31.41	17.60	0.80	22.39	38.14	3.66	14.48	1.35
	DISPONIBILIDAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCIONES PROGRAMADAS	15.18	180.04	1.02	0.00	0.00	0.00	224.20	337.61	96.86	41.44	30.64	0.00
	NECESIDADES NETAS	45.00	180.00	45.00	0.00	0.00	0.00	225.00	350.00	135.00	45.00	45.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	180.00	45.00	0.00	0.00	0.00	225.00	350.00	135.00	45.00	45.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS												

BIBLIOTECA "GONZALO ZEVALLOS"
FACPOA

	1.3.1 POLIPROPILENO											
	NECESIDADES BRUTAS	12.66	98.04	8.66	3.66	0.00	4.22	73.82	103.46	38.46	24.33	10.43	4.01
	DISPONIBILIDAD	10.27	42.23	35.63	31.97	31.97	27.75	43.83	30.37	30.82	14.59	4.16	0.16
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	47.77	0.00	0.00	0.00	0.00	46.17	59.63	6.09	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	90.00	0.00	0.00	0.00	0.00	90.00	90.00	45.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	90.00	0.00	0.00	0.00	0.00	90.00	90.00	45.00	0.00	0.00	0.00

	1.3.2 COLORANTE												
	NECESIDADES BRUTAS	0.20	0.92	0.10	0.06	0.00	0.07	1.17	1.64	0.58	0.39	0.17	0.06
	DISPONIBILIDAD	42.30	41.38	41.28	41.22	41.22	41.15	39.98	38.33	37.75	37.37	37.20	37.14
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.4.1 POLIETILENO BAJA DENSIDAD												
	NECESIDADES BRUTAS	1.36	6.16	0.70	0.39	0.00	0.45	7.88	11.02	3.88	2.59	1.11	0.43
	DISPONIBILIDAD	20.92	20.73	20.03	19.64	19.64	19.19	11.31	0.29	41.41	38.82	37.71	37.28
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.59	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00

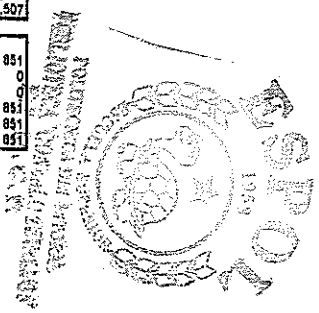
	1.4.2 COLORANTE												
	NECESIDADES BRUTAS	0.02	0.10	0.01	0.01	0.00	0.01	0.12	0.17	0.06	0.04	0.02	0.01
	DISPONIBILIDAD	44.71	44.62	44.61	44.60	44.60	44.59	44.47	44.29	44.23	44.19	44.17	44.17
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO												
	NECESIDADES BRUTAS	7.10	32.65	3.70	2.05	0.00	2.37	41.45	58.01	20.44	13.64	5.85	2.25
	DISPONIBILIDAD	38.03	7.28	3.58	1.53	1.53	44.16	2.71	34.70	14.26	0.61	39.76	37.52
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	5.17	0.00	0.00	0.00	0.00	0.84	0.00	55.30	0.00	0.00	5.24	0.00
	RECEPCION PEDIDOS PLANIFICADOS	45.00	0.00	0.00	0.00	0.00	45.00	0.00	90.00	0.00	0.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	45.00	0.00	90.00	0.00	0.00	45.00	0.00	0.00

	1.1.4.1 POLIACETAL NATURAL												
	NECESIDADES BRUTAS	2.01	9.22	1.05	0.58	0.00	0.67	11.74	16.44	5.78	3.87	1.66	0.64
	DISPONIBILIDAD	17.03	7.81	6.76	6.18	6.18	5.51	37.77	21.33	15.54	11.67	10.02	9.38
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	7.23	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00

APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

	AZULEXP1	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
	Io:	459,116											
	Ft		495,561	954,403	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	It		0	0	0	0	0	0	0	0	0	0	0
	MPS		36,445	954,403	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	1.AZULEXP1												
	NECESIDADES BRUTAS		36,445	954,403	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	DISPONIBILIDAD		41,066	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		36,445	913,337	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	RECEPCION PEDIDOS PLANIFICADOS		36,445	913,337	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	LANZAMIENTO PEDIDOS PLANIFICADOS		36,445	913,337	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	1.1REPUESTO												
	NECESIDADES BRUTAS		36,445	913,337	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	DISPONIBILIDAD	640,000	603,555	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	309,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	RECEPCION PEDIDOS PLANIFICADOS		0	309,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	309,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	1.2 BARRIL												
	NECESIDADES BRUTAS		36,445	913,337	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	DISPONIBILIDAD	650,000	613,555	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	299,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	RECEPCION PEDIDOS PLANIFICADOS		0	299,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	299,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	1.3 TAPA												
	NECESIDADES BRUTAS		36,445	913,337	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	DISPONIBILIDAD	630,000	593,555	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	319,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	RECEPCION PEDIDOS PLANIFICADOS		0	319,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	319,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	1.4 BOTON												
	NECESIDADES BRUTAS		36,445	913,337	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	DISPONIBILIDAD	630,000	593,555	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	319,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	RECEPCION PEDIDOS PLANIFICADOS		0	319,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	319,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,461,095	1,021,507
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS		30	781	483	292	546	0	170	117	1,664	2,068	851
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		30	781	483	292	546	0	170	117	1,664	2,068	851
	RECEPCION PEDIDOS PLANIFICADOS		30	781	483	292	546	0	170	117	1,664	2,068	851
	LANZAMIENTO PEDIDOS PLANIFICADOS		30	781	483	292	546	0	170	117	1,664	2,068	851



	1.6 CAJILLA												
	NECESIDADES BRUTAS		1,519	39,056	23,138	14,605	27,283	0	6,460	5,872	83,187	103,379	42,563
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		1,519	39,056	23,138	14,605	27,283	0	6,460	5,872	83,187	103,379	42,563
	RECEPCION PEDIDOS PLANIFICADOS		1,519	39,056	23,138	14,605	27,283	0	6,460	5,872	83,187	103,379	42,563
	LANZAMIENTO PEDIDOS PLANIFICADOS		1,519	39,056	23,138	14,605	27,283	0	6,460	5,872	83,187	103,379	42,563

	1.1.1 PUNTO												
	NECESIDADES BRUTAS		0	309,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,481,095	1,021,507
	DISPONIBILIDAD	260,000	260,000	216	19,906	19,391	14,611	14,611	11,099	20,182	23,699	17,604	21,097
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	49,782	556,094	330,609	635,389	0	188,901	120,818	1,976,301	2,457,396	1,003,903
	RECEPCION PEDIDOS PLANIFICADOS		0	50,000	576,000	350,000	650,000	0	200,000	150,000	2,000,000	2,475,000	1,025,000
	LANZAMIENTO PEDIDOS PLANIFICADOS		575,000	350,000	650,000	0	200,000	150,000	2,000,000	2,475,000	1,025,000	575,000	575,000

	1.1.2 TINTA	0.00032 lt											
	NECESIDADES BRUTAS		0.00	99.13	177.70	112.16	209.53	0.00	65.12	45.09	638.87	793.95	326.88
	DISPONIBILIDAD		0.00	0.87	23.17	11.01	1.46	1.46	36.35	36.26	67.38	3.43	76.55
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	99.13	176.83	99.99	198.52	0.00	63.65	8.74	602.02	696.57	323.45
	RECEPCION PEDIDOS PLANIFICADOS		0.00	100.00	200.00	100.00	200.00	0.00	100.00	45.00	700.00	700.00	400.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		200.00	100.00	200.00	0.00	100.00	45.00	700.00	700.00	400.00	200.00	100.00

	1.1.3 TUBO												
	NECESIDADES BRUTAS		0	309,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,481,095	1,021,507
	DISPONIBILIDAD	220,000	220,000	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	89,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,481,095	1,021,507
	RECEPCION PEDIDOS PLANIFICADOS		0	89,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,481,095	1,021,507
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	89,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,481,095	1,021,507

	1.1.4 SOPORTE												
	NECESIDADES BRUTAS		0	309,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,481,095	1,021,507
	DISPONIBILIDAD	200,000	200,000	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	109,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,481,095	1,021,507
	RECEPCION PEDIDOS PLANIFICADOS		0	109,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,481,095	1,021,507
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	109,782	555,312	350,515	654,780	0	203,512	140,917	1,996,483	2,481,095	1,021,507

	1.2.1 POLIESTIRENO	0.0035 KG											
	NECESIDADES BRUTAS		0.00	1,049.24	1,943.59	1,226.80	2,291.73	0.00	712.29	493.21	6,987.69	8,683.83	3,575.27
	DISPONIBILIDAD		0.00	30.76	22.17	10.37	13.64	13.64	21.35	23.14	10.45	11.01	35.34
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	1,049.24	1,912.83	1,204.63	2,281.36	0.00	699.65	471.86	6,964.55	8,673.38	3,563.66
	RECEPCION PEDIDOS PLANIFICADOS		0.00	1,080.00	1,935.00	1,215.00	2,295.00	0.00	720.00	495.00	6,975.00	8,685.00	3,600.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		1,080.00	1,935.00	1,215.00	2,295.00	0.00	720.00	495.00	6,975.00	8,685.00	3,600.00	1,980.00

	1.3.1 POLIPROPILENO	0.00107 KG										
	NECESIDADES BRUTAS		0.00	342.17	594.19	375.05	700.81	0.00	217.78	150.78	2,136.24	2,934.77	1,093.01
	DISPONIBILIDAD		0.00	17.83	8.85	38.80	12.88	12.88	20.23	4.44	28.21	28.44	15.42
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	342.17	576.35	366.40	682.02	0.00	204.77	130.66	2,131.79	2,626.56	1,094.58
	RECEPCION PEDIDOS PLANIFICADOS		0.00	360.00	585.00	405.00	675.00	0.00	225.00	135.00	2,160.00	2,655.00	1,080.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	360.00	585.00	405.00	675.00	0.00	225.00	135.00	2,160.00	2,655.00	1,080.00

	1.3.2 COLORANTE	0.0000170 KG										
	NECESIDADES BRUTAS		0.00	5.44	9.44	5.96	11.13	0.00	3.46	2.40	33.94	42.18	17.37
	DISPONIBILIDAD		0.00	39.56	30.12	24.16	13.03	13.03	9.57	7.16	16.24	21.06	3.69
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	5.44	0.00	0.00	0.00	0.00	0.00	0.00	26.78	23.94	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	45.00	0.00	45.00

	1.4.1 POLIETILENO BAJA DENSIDAD	0.0001140 KG										
	NECESIDADES BRUTAS		0.00	36.46	63.31	39.96	74.64	0.00	23.20	16.06	227.60	282.84	116.45
	DISPONIBILIDAD		0.00	8.54	35.24	40.28	10.64	10.64	32.44	16.37	13.77	0.93	0.00
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	36.46	54.76	4.72	34.36	0.00	12.56	0.00	211.23	269.07	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	45.00	90.00	45.00	45.00	0.00	45.00	0.00	225.00	270.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		45.00	90.00	45.00	45.00	0.00	45.00	0.00	225.00	270.00	0.00	0.00

	1.4.2 COLORANTE	0.0000016 KG										
	NECESIDADES BRUTAS		0.00	0.59	1.00	0.63	1.18	0.00	0.37	0.25	3.59	4.47	1.84
	DISPONIBILIDAD	17.00	17.00	16.42	15.42	14.79	13.62	13.62	13.25	13.00	9.40	4.94	3.10
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO	0.0006000 KG										
	NECESIDADES BRUTAS		0.00	53.97	333.19	210.31	392.87	0.00	122.11	84.55	1,197.89	1,488.66	612.90
	DISPONIBILIDAD		0.00	36.13	17.94	32.63	44.77	44.77	12.66	18.11	35.22	31.56	3.66
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	53.97	297.06	192.37	360.23	0.00	77.34	71.89	1,179.78	1,453.44	561.34
	RECEPCION PEDIDOS PLANIFICADOS		0.00	90.00	315.00	225.00	405.00	0.00	90.00	90.00	1,215.00	1,485.00	585.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		90.00	315.00	225.00	405.00	0.00	90.00	90.00	1,215.00	1,485.00	585.00	360.00

	1.1.4.1 POLIACETAL NATURAL	0.0001700 KG										
	NECESIDADES BRUTAS		0.00	15.66	94.40	59.59	111.31	0.00	34.60	23.96	339.40	421.79	173.66
	DISPONIBILIDAD		0.00	28.34	21.83	52.35	31.03	31.03	41.44	17.48	38.08	21.29	27.64
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	15.66	68.57	37.65	68.97	0.00	3.56	0.00	321.92	393.71	152.36
	RECEPCION PEDIDOS PLANIFICADOS		0.00	45.00	90.00	90.00	90.00	0.00	45.00	0.00	360.00	405.00	180.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		45.00	90.00	90.00	90.00	0.00	45.00	0.00	360.00	405.00	180.00	90.00

	AZULEXP1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	lo:												
	Ft	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	It	0	0	0	0	0	0	0	0	0	0	0	0
	MPS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	1.AZULEXP1												
	NECESIDADES BRUTAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	RECEPCION PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	LANZAMIENTO PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	1.1REPUESTO												
	NECESIDADES BRUTAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	RECEPCION PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	LANZAMIENTO PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	1.2 BARRIL												
	NECESIDADES BRUTAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	RECEPCION PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	LANZAMIENTO PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	1.3 TAPA												
	NECESIDADES BRUTAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	RECEPCION PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	LANZAMIENTO PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	1.4 BOTON												
	NECESIDADES BRUTAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	RECEPCION PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	LANZAMIENTO PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS	479	494	950	551	347	647	0	200	138	1,954	2,423	996
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	479	494	950	551	347	647	0	200	138	1,954	2,423	996
	RECEPCION PEDIDOS PLANIFICADOS	479	494	950	551	347	647	0	200	138	1,954	2,423	996
	LANZAMIENTO PEDIDOS PLANIFICADOS	479	494	950	551	347	647	0	200	138	1,954	2,423	996

BIBLIOTECA "GONZALO ZEVALLOS"

	1.6 CAJILLA												
	NECESIDADES BRUTAS	23,940	24,723	47,487	27,558	17,351	32,334	0	10,003	6,911	97,693	121,148	49,775
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	23,940	24,723	47,487	27,558	17,351	32,334	0	10,003	6,911	97,693	121,148	49,775
	RECEPCION PEDIDOS PLANIFICADOS	23,940	24,723	47,487	27,558	17,351	32,334	0	10,003	6,911	97,693	121,148	49,775
	LANZAMIENTO PEDIDOS PLANIFICADOS	23,940	24,723	47,487	27,558	17,351	32,334	0	10,003	6,911	97,693	121,148	49,775
	1.1.1 PUNTO												
	NECESIDADES BRUTAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	DISPONIBILIDAD	21,549	3,204	13,825	2,128	10,702	8,695	9,695	19,632	3,790	9,151	1,600	6,993
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	553,452	571,796	1,139,475	647,872	414,296	785,305	0	230,368	148,220	2,340,849	2,906,400	1,193,007
	RECEPCION PEDIDOS PLANIFICADOS	575,000	575,000	1,150,000	650,000	425,000	775,000	0	250,000	150,000	2,350,000	2,900,000	1,200,000
	LANZAMIENTO PEDIDOS PLANIFICADOS	1,150,000	650,000	425,000	775,000	0	250,000	150,000	2,350,000	2,900,000	1,200,000	0	0
	1.1.2 TINTA												
	NECESIDADES BRUTAS	183.86	189.87	364.70	211.65	133.28	248.32	0.00	76.82	53.07	750.36	930.42	382.27
	DISPONIBILIDAD	92.70	2.83	38.13	26.46	93.22	44.90	44.90	68.08	15.01	64.73	34.31	52.04
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	107.30	97.17	361.87	173.62	106.78	155.10	0.00	31.92	0.00	735.27	865.69	347.96
	RECEPCION PEDIDOS PLANIFICADOS	200.00	100.00	400.00	200.00	200.00	200.00	0.00	100.00	0.00	800.00	800.00	400.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	400.00	200.00	200.00	200.00	0.00	100.00	0.00	800.00	800.00	400.00	0.00	0.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	RECEPCION PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	LANZAMIENTO PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	RECEPCION PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	LANZAMIENTO PEDIDOS PLANIFICADOS	574,549	593,344	1,139,679	661,397	416,426	776,007	0	240,063	165,852	2,344,629	2,907,551	1,194,606
	1.2.1 POLIESTIRENO												
	NECESIDADES BRUTAS	2,010.92	2,076.71	3,985.87	2,314.89	1,457.49	2,716.03	0.00	840.22	580.48	8,206.20	10,176.43	4,181.12
	DISPONIBILIDAD	5.42	43.71	14.84	39.95	22.46	8.43	8.43	21.21	25.73	9.53	3.10	0.99
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	1,974.58	2,071.29	3,945.16	2,300.05	1,417.54	2,693.57	0.00	833.79	559.27	8,190.47	10,166.90	4,178.02
	RECEPCION PEDIDOS PLANIFICADOS	1,980.00	2,115.00	3,960.00	2,340.00	1,440.00	2,700.00	0.00	955.00	585.00	8,190.00	10,170.00	4,185.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	2,115.00	3,960.00	2,340.00	1,440.00	2,700.00	0.00	955.00	585.00	8,190.00	10,170.00	4,185.00	0.00

	1.3.1 POLIPROPILENO												
	NECESIDADES BRUTAS	614.77	634.88	1,219.46	707.69	445.69	830.33	0.00	258.87	177.46	2,569.75	3,111.08	1,278.23
	DISPONIBILIDAD	30.66	25.78	21.32	33.83	28.05	17.72	17.72	30.86	33.39	44.64	38.56	20.33
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	569.34	604.22	1,193.68	686.37	411.95	792.28	0.00	239.14	146.61	2,475.36	3,066.44	1,239.67
	RECEPCION PEDIDOS PLANIFICADOS	630.00	630.00	1,215.00	720.00	450.00	810.00	0.00	270.00	180.00	2,520.00	3,105.00	1,260.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	630.00	630.00	1,215.00	720.00	450.00	810.00	0.00	270.00	180.00	2,520.00	3,105.00	1,260.00

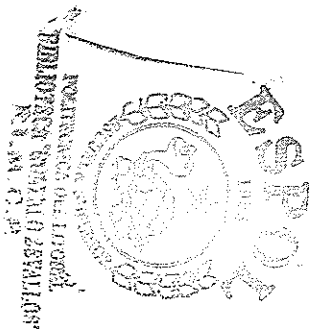
	1.3.2 COLORANTE												
	NECESIDADES BRUTAS	9.77	10.09	19.37	11.24	7.08	13.19	0.00	4.09	2.82	39.86	49.43	20.31
	DISPONIBILIDAD	38.03	28.64	9.46	43.22	36.14	22.95	22.95	18.87	16.05	21.19	16.76	41.46
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.07	0.00	0.00	1.78	0.00	0.00	0.00	0.00	0.00	23.81	28.24	3.55
	RECEPCION PEDIDOS PLANIFICADOS	45.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	45.00	45.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	45.00	45.00	45.00	0.00

	1.4.1 POLIETILENO BAJA DENSIDAD												
	NECESIDADES BRUTAS	65.50	67.64	129.92	75.40	47.47	88.46	0.00	27.37	18.91	267.29	331.46	136.19
	DISPONIBILIDAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.4.2 COLORANTE												
	NECESIDADES BRUTAS	1.03	1.07	2.05	1.19	0.75	1.40	0.00	0.43	0.30	4.22	5.23	2.15
	DISPONIBILIDAD	2.08	0.99	43.94	42.76	42.00	40.61	40.61	40.17	39.88	35.66	30.42	28.27
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO												
	NECESIDADES BRUTAS	344.73	356.01	683.81	396.84	249.86	465.60	0.00	144.04	99.61	1,408.78	1,744.63	716.76
	DISPONIBILIDAD	18.93	22.92	14.12	22.28	42.42	26.82	26.82	17.78	6.27	41.49	6.96	10.20
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	341.07	337.08	680.88	382.72	227.58	423.18	0.00	117.22	91.73	1,366.51	1,703.04	709.80
	RECEPCION PEDIDOS PLANIFICADOS	360.00	360.00	675.00	405.00	270.00	450.00	0.00	135.00	90.00	1,440.00	1,710.00	720.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	360.00	675.00	405.00	270.00	450.00	0.00	135.00	90.00	1,440.00	1,710.00	720.00	0.00

	1.1.4.1 POLIACETAL NATURAL												
	NECESIDADES BRUTAS	97.07	100.07	193.78	112.44	70.78	131.92	0.00	40.81	28.19	398.59	494.28	203.08
	DISPONIBILIDAD	19.86	9.09	40.35	17.91	37.12	40.20	40.20	44.39	16.19	22.61	23.32	0.24
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	70.04	90.91	184.65	72.09	52.88	94.80	0.00	0.61	0.00	382.39	471.68	179.76
	RECEPCION PEDIDOS PLANIFICADOS	90.00	90.00	225.00	90.00	90.00	135.00	0.00	45.00	0.00	405.00	495.00	180.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	90.00	225.00	90.00	90.00	135.00	0.00	45.00	0.00	405.00	495.00	180.00	0.00

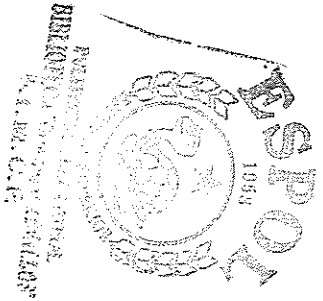


APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

	VERDE EXP1	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
	Io:	114,779											
	Ft		17,222	28,439	117,501	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	It		97,556	69,119	0	0	0	0	0	0	0	0	0
	MPS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	1.VERDE EXP1												
	NECESIDADES BRUTAS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	RECEPCION PEDIDOS PLANIFICADOS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	1.1REFUERZO												
	NECESIDADES BRUTAS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	DISPONIBILIDAD	35,000	35,000	35,000	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	13,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	RECEPCION PEDIDOS PLANIFICADOS		0	0	13,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	13,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	1.2 BARRIL												
	NECESIDADES BRUTAS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	RECEPCION PEDIDOS PLANIFICADOS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	1.3 TAPA												
	NECESIDADES BRUTAS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	RECEPCION PEDIDOS PLANIFICADOS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	1.4 BOTON												
	NECESIDADES BRUTAS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	RECEPCION PEDIDOS PLANIFICADOS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS		0	0	40	17	89	0	6	70	105	21	70
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	40	17	89	0	6	70	105	21	70
	RECEPCION PEDIDOS PLANIFICADOS		0	0	40	17	89	0	6	70	105	21	70
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	40	17	89	0	6	70	105	21	70

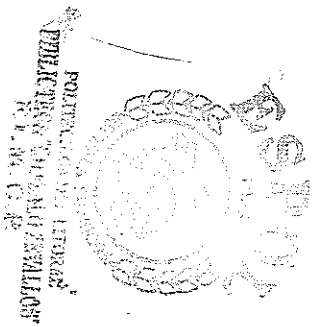
	1.0 CAJILLA												
	NECESIDADES BRUTAS		0	0	2,018	842	4,462	0	297	3,521	5,271	1,026	3,502
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	2,018	842	4,462	0	297	3,521	5,271	1,026	3,502
	RECEPCION PEDIDOS PLANIFICADOS		0	0	2,018	842	4,462	0	297	3,521	5,271	1,026	3,502
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	2,018	842	4,462	0	297	3,521	5,271	1,026	3,502
	1.1.1 PUNTO												
	NECESIDADES BRUTAS		0	0	13,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	DISPONIBILIDAD	96,000	96,000	96,000	82,557	62,341	5,261	5,261	23,129	13,627	12,130	12,495	28,439
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	44,739	0	1,871	61,373	112,870	12,505	71,561
	RECEPCIÓN PEDIDOS PLANIFICADOS		0	0	0	0	50,000	0	25,000	75,000	125,000	25,000	100,000
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	50,000	0	25,000	75,000	125,000	25,000	100,000	50,000	25,000
	1.1.2 TINTA	*0.00032 R											
	NECESIDADES BRUTAS		0.00	0.00	4.30	6.47	34.27	0.00	2.28	27.04	40.48	7.88	26.90
	DISPONIBILIDAD		0.00	0.00	95.70	89.23	54.96	54.96	52.68	25.64	85.16	77.28	50.38
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	4.30	0.00	0.00	0.00	0.00	0.00	14.84	0.00	0.00
	RECEPCIÓN PEDIDOS PLANIFICADOS		0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		100.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS		0	0	13,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	13,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	RECEPCION PEDIDOS PLANIFICADOS		0	0	13,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	13,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS		0	0	13,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	13,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	RECEPCION PEDIDOS PLANIFICADOS		0	0	13,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	13,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
	1.2.1 POLIESTIRENO	0.0035 KG											
	NECESIDADES BRUTAS		0.00	0.00	168.55	70.76	374.78	0.00	24.96	295.76	442.74	86.22	294.20
	DISPONIBILIDAD		0.00	0.00	19.45	29.69	14.91	14.91	34.95	9.19	16.45	20.23	41.04
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	169.55	80.31	345.09	0.00	10.05	280.81	433.55	69.77	273.96
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	180.00	90.00	360.00	0.00	45.00	270.00	450.00	90.00	315.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	180.00	90.00	360.00	0.00	45.00	270.00	450.00	90.00	315.00	225.00

	1.3.1 POLIPROPILENO	0.00167 KG											
	NECESIDADES BRUTAS		0.00	0.00	51.83	21.83	114.59	0.00	7.63	90.42	135.35	28.36	89.94
	DISPONIBILIDAD		0.00	0.00	38.17	16.54	36.96	36.96	29.33	28.91	28.56	2.20	2.20
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	51.83	0.00	98.04	0.00	0.00	61.09	106.44	0.00	87.74
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	90.00	0.00	135.00	0.00	0.00	90.00	135.00	0.00	90.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	90.00	0.00	135.00	0.00	0.00	90.00	135.00	0.00	90.00
	1.3.2 COLORANTE	0.0000170 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.82	0.34	1.82	0.00	0.12	1.44	2.15	0.42	1.43
	DISPONIBILIDAD		0.00	0.00	44.18	43.63	42.01	42.01	41.89	40.45	38.30	37.89	36.46
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.4.1 POLIETILENO BAJA DENSIDAD	0.0001140 KG											
	NECESIDADES BRUTAS		0.00	0.00	5.52	2.30	12.21	0.00	0.81	9.63	14.42	2.81	9.58
	DISPONIBILIDAD		0.00	0.00	39.48	37.17	24.97	24.97	24.15	14.52	0.10	42.29	32.71
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	5.52	0.00	0.00	0.00	0.00	0.00	0.00	2.71	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00
	1.4.2 COLORANTE	0.0000018 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.09	0.04	0.19	0.00	0.01	0.15	0.23	0.04	0.15
	DISPONIBILIDAD		0.00	0.00	44.91	44.86	44.68	44.68	44.67	44.52	44.29	44.25	44.10
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.1.3.1 POLIETILENO	0.0006000 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.07	12.13	64.25	0.00	4.28	50.70	75.80	14.78	50.43
	DISPONIBILIDAD		0.00	0.00	39.93	24.80	5.56	5.56	1.28	40.58	9.68	39.90	34.46
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.07	0.00	39.44	0.00	0.00	49.42	35.32	5.10	10.54
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	45.00	0.00	45.00	0.00	0.00	90.00	45.00	45.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	45.00	0.00	45.00	0.00	0.00	90.00	45.00	45.00	45.00	45.00
	1.1.4.1 POLIACETAL NATURAL	0.0001700 KG											
	NECESIDADES BRUTAS		0.00	0.00	2.29	3.44	18.20	0.00	1.21	14.37	21.50	4.19	14.29
	DISPONIBILIDAD		0.00	0.00	42.71	39.28	21.07	21.07	19.86	5.50	28.99	24.80	10.51
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	2.29	0.00	0.00	0.00	0.00	0.00	16.01	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	45.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	45.00



	VERDE EXP1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	lo:												
	FI	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
	II	0	0	0	0	0	0	0	0	0	0	0	0
	MPS	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
	1.VERDE EXP1												
	NECESIDADES BRUTAS												
	DISPONIBILIDAD	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
NIVEL 0	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
	LANZAMIENTO PEDIDOS PLANIFICADOS	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
	1.1REPUESTO												
	NECESIDADES BRUTAS												
	DISPONIBILIDAD	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
	LANZAMIENTO PEDIDOS PLANIFICADOS	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
	1.2 BARRIL												
	NECESIDADES BRUTAS												
	DISPONIBILIDAD	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
	LANZAMIENTO PEDIDOS PLANIFICADOS	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
	1.3 TAPA												
	NECESIDADES BRUTAS												
	DISPONIBILIDAD	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
	LANZAMIENTO PEDIDOS PLANIFICADOS	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
	1.4 BOTON												
	NECESIDADES BRUTAS												
	DISPONIBILIDAD	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
	LANZAMIENTO PEDIDOS PLANIFICADOS	74,987	20,621	33,982	140,027	24,018	126,911	0	8,414	99,458	148,582	28,870	98,304
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS												
	DISPONIBILIDAD	82	17	28	117	20	106	0	7	83	124	24	82
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCION PEDIDOS PLANIFICADOS	82	17	28	117	20	106	0	7	83	124	24	82
	LANZAMIENTO PEDIDOS PLANIFICADOS	82	17	28	117	20	106	0	7	83	124	24	82

	1.0 CAJILLA												
	NECESIDADES BRUTAS	3,124	859	1,416	5,834	1,001	5,288	0	351	4,144	6,190	1,203	4,096
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	3,124	859	1,416	5,834	1,001	5,288	0	351	4,144	6,190	1,203	4,096
	RECEPCION PEDIDOS PLANIFICADOS	3,124	859	1,416	5,834	1,001	5,288	0	351	4,144	6,190	1,203	4,096
	LANZAMIENTO PEDIDOS PLANIFICADOS	3,124	859	1,416	5,834	1,001	5,288	0	351	4,144	6,190	1,203	4,096
	1.1.1 PUNTO												
	NECESIDADES BRUTAS	74,987	20,621	33,992	140,027	24,018	126,911	0	8,414	99,456	148,562	28,870	98,304
	DISPONIBILIDAD	3,451	7,631	23,059	9,842	9,824	7,913	7,913	24,499	40	1,476	22,868	24,304
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	46,549	17,169	26,131	116,158	15,176	117,087	0	901	74,960	148,522	27,392	75,096
	RECEPCION PEDIDOS PLANIFICADOS	50,000	25,000	50,000	125,000	25,000	125,000	0	25,000	75,000	150,000	50,000	100,000
	LANZAMIENTO PEDIDOS PLANIFICADOS	50,000	125,000	25,000	125,000	0	25,000	75,000	150,000	50,000	100,000	0	0
	1.1.2 TINTA												
	NECESIDADES BRUTAS	24.00	6.60	10.87	44.81	7.69	40.61	0.00	2.69	31.83	47.54	9.24	31.45
	DISPONIBILIDAD	26.39	19.79	8.92	64.11	50.42	15.81	15.81	13.12	26.29	23.75	14.51	28.05
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	35.89	0.00	0.00	0.00	0.00	10.71	21.25	0.00	16.84
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	45.00	45.00	0.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	100.00	0.00	0.00	0.00	0.00	45.00	45.00	0.00	45.00	0.00	0.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS	74,987	20,621	33,992	140,027	24,018	126,911	0	8,414	99,456	148,562	28,870	98,304
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	74,987	20,621	33,992	140,027	24,018	126,911	0	8,414	99,456	148,562	28,870	98,304
	RECEPCION PEDIDOS PLANIFICADOS	74,987	20,621	33,992	140,027	24,018	126,911	0	8,414	99,456	148,562	28,870	98,304
	LANZAMIENTO PEDIDOS PLANIFICADOS	74,987	20,621	33,992	140,027	24,018	126,911	0	8,414	99,456	148,562	28,870	98,304
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS	74,987	20,621	33,992	140,027	24,018	126,911	0	8,414	99,456	148,562	28,870	98,304
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	74,987	20,621	33,992	140,027	24,018	126,911	0	8,414	99,456	148,562	28,870	98,304
	RECEPCION PEDIDOS PLANIFICADOS	74,987	20,621	33,992	140,027	24,018	126,911	0	8,414	99,456	148,562	28,870	98,304
	LANZAMIENTO PEDIDOS PLANIFICADOS	74,987	20,621	33,992	140,027	24,018	126,911	0	8,414	99,456	148,562	28,870	98,304
	1.2.1 POLIESTIRENO												
	NECESIDADES BRUTAS	202.46	72.17	116.87	490.09	84.06	444.19	0.00	29.45	348.10	519.97	101.05	344.06
	DISPONIBILIDAD	3.58	21.41	37.54	42.45	3.38	9.19	9.19	24.74	36.64	11.07	0.63	16.56
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	221.42	68.59	97.46	452.56	41.62	440.81	0.00	20.26	323.36	493.33	99.37	343.44
	RECEPCION PEDIDOS PLANIFICADOS	225.00	90.00	135.00	495.00	45.00	450.00	0.00	45.00	360.00	495.00	90.00	360.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	90.00	135.00	495.00	45.00	450.00	0.00	45.00	360.00	495.00	90.00	360.00	0.00



	1.3.1 POLIPROPILENO											
	NECESIDADES BRUTAS	80.24	22.06	38.34	140.63	25.70	135.79	0.00	9.00	106.42	158.86	30.89	105.19
	DISPONIBILIDAD	12.02	34.98	43.62	28.79	3.09	2.30	2.30	38.29	21.87	42.91	12.02	41.83
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	77.98	10.04	1.38	106.21	0.00	132.70	0.00	6.71	68.13	137.09	0.00	93.17
	RECEPCION PEDIDOS PLANIFICADOS	90.00	45.00	45.00	135.00	0.00	135.00	0.00	45.00	90.00	180.00	0.00	135.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	90.00	45.00	45.00	135.00	0.00	135.00	0.00	45.00	90.00	180.00	0.00	135.00

	1.3.2 COLORANTE											
	NECESIDADES BRUTAS	1.27	0.35	0.59	2.38	0.41	2.18	0.00	0.14	1.69	2.53	0.49	1.67
	DISPONIBILIDAD	35.18	34.93	34.25	31.87	31.47	29.31	29.31	29.16	27.47	24.95	24.46	22.79
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.4.1 POLIETILENO BAJA DENSIDAD											
	NECESIDADES BRUTAS	8.65	2.35	3.87	15.88	2.74	14.47	0.00	0.96	11.34	16.94	3.29	11.21
	DISPONIBILIDAD	24.16	21.81	17.94	1.97	44.24	29.77	29.77	28.81	17.47	0.53	42.24	31.04
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00	2.76	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00

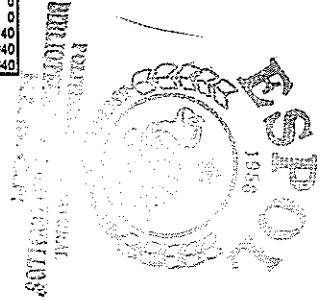
	1.4.2 COLORANTE											
	NECESIDADES BRUTAS	0.13	0.04	0.06	0.25	0.04	0.23	0.00	0.02	0.18	0.27	0.05	0.18
	DISPONIBILIDAD	43.85	43.92	43.86	43.61	43.57	43.34	43.34	43.32	43.14	42.88	42.82	42.65
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO											
	NECESIDADES BRUTAS	44.89	12.37	20.38	84.02	14.41	76.15	0.00	5.05	60.68	88.14	17.32	59.68
	DISPONIBILIDAD	34.47	22.10	1.72	7.71	38.29	52.15	52.15	47.10	32.42	33.29	15.98	1.99
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	10.53	0.00	0.00	62.29	6.71	37.85	0.00	0.00	12.58	56.71	0.00	43.02
	RECEPCION PEDIDOS PLANIFICADOS	45.00	0.00	0.00	90.00	45.00	90.00	0.00	0.00	45.00	90.00	0.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	90.00	45.00	90.00	0.00	0.00	45.00	90.00	0.00	45.00	0.00

	1.1.4.1 POLIACETAL NATURAL											
	NECESIDADES BRUTAS	12.75	3.51	5.77	23.80	4.08	21.57	0.00	1.43	16.91	25.26	4.91	16.71
	DISPONIBILIDAD	42.77	39.26	33.49	9.68	5.60	28.03	28.03	27.59	10.68	30.43	25.52	8.81
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	2.23	0.00	0.00	0.00	0.00	15.97	0.00	0.00	0.00	14.57	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	45.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00

APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

	NEGRO EXP1	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
	lo:	401,727											
	Pt		384,068	661,619	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	It		17,659	0	0	0	0	0	0	0	0	0	0
	MPS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
NIVEL 0	1.NEGRO EXP1												
	NECESIDADES BRUTAS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	RECEPCION PEDIDOS PLANIFICADOS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
NIVEL 1	1.1REPUESTO												
	NECESIDADES BRUTAS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	DISPONIBILIDAD	386,000	386,000	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	277,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	RECEPCION PEDIDOS PLANIFICADOS		0	277,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	277,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
NIVEL 1	1.2 BARRIL												
	NECESIDADES BRUTAS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	RECEPCION PEDIDOS PLANIFICADOS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
NIVEL 1	1.3 TAPA												
	NECESIDADES BRUTAS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	DISPONIBILIDAD	37,600	37,600	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	626,361	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	RECEPCION PEDIDOS PLANIFICADOS		0	626,361	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	626,361	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
NIVEL 1	1.4 BOTON												
	NECESIDADES BRUTAS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	RECEPCION PEDIDOS PLANIFICADOS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	663,961	125	266,534	1,472,162	0	54,154	368,984	2,670,491	2,103,177	1,127,549
NIVEL 1	1.5 CAJA MASTER												
	NECESIDADES BRUTAS		0	553	0	215	1,227	0	45	307	2,392	1,753	940
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	553	0	215	1,227	0	45	307	2,392	1,753	940
	RECEPCION PEDIDOS PLANIFICADOS		0	553	0	215	1,227	0	45	307	2,392	1,753	940
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	553	0	215	1,227	0	45	307	2,392	1,753	940



	1.6 CAJILLA												
	NECESIDADES BRUTAS		0	27,665	5	10,772	61,340	0	2,256	16,374	119,604	87,632	46,981
NIVEL 1	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	27,665	5	10,772	61,340	0	2,256	16,374	119,604	87,632	46,981
	RECEPCION PEDIDOS PLANIFICADOS		0	27,665	5	10,772	61,340	0	2,256	16,374	119,604	87,632	46,981
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	27,665	5	10,772	61,340	0	2,256	16,374	119,604	87,632	46,981
	1.1.1 PUNTO												
	NECESIDADES BRUTAS		0	277,991	125	256,634	1,472,162	0	54,154	368,984	2,870,491	2,103,177	1,127,549
NIVEL 2	DISPONIBILIDAD	129,000	129,000	1,039	914	17,380	20,218	20,218	18,064	22,080	1,586	23,411	20,862
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	148,961	0	257,620	1,454,782	0	33,936	352,920	2,848,412	2,101,589	1,104,138
	RECEPCION PEDIDOS PLANIFICADOS		0	150,000	0	275,000	1,475,000	0	50,000	375,000	2,850,000	2,125,000	1,125,000
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	275,000	1,475,000	0	50,000	375,000	2,850,000	2,125,000	1,125,000	875,000	475,000
	1.1.2 TINTA	*0.00032 R											
	NECESIDADES BRUTAS		0.00	88.85	0.04	82.73	471.09	0.00	17.33	118.07	918.56	673.02	360.82
NIVEL 2	DISPONIBILIDAD		0.00	11.05	11.01	26.28	57.19	57.19	30.86	21.79	3.23	30.21	69.40
	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	88.85	0.00	71.72	442.81	0.00	0.00	78.21	896.77	669.79	330.60
	RECEPCION PEDIDOS PLANIFICADOS		0.00	100.00	0.00	100.00	500.00	0.00	0.00	100.00	900.00	700.00	400.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	100.00	500.00	0.00	0.00	100.00	900.00	700.00	400.00	200.00	100.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS		0	277,991	125	256,634	1,472,162	0	54,154	368,984	2,870,491	2,103,177	1,127,549
NIVEL 2	DISPONIBILIDAD	123,500	123,500	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	125	256,634	1,472,162	0	54,154	368,984	2,870,491	2,103,177	1,127,549
	RECEPCION PEDIDOS PLANIFICADOS		0	0	125	256,634	1,472,162	0	54,154	368,984	2,870,491	2,103,177	1,127,549
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	125	256,634	1,472,162	0	54,154	368,984	2,870,491	2,103,177	1,127,549
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS		0	277,991	125	256,634	1,472,162	0	54,154	368,984	2,870,491	2,103,177	1,127,549
NIVEL 2	DISPONIBILIDAD	320,000	320,000	42,039	41,914	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	216,620	1,472,162	0	54,154	368,984	2,870,491	2,103,177	1,127,549
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	216,620	1,472,162	0	54,154	368,984	2,870,491	2,103,177	1,127,549
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	216,620	1,472,162	0	54,154	368,984	2,870,491	2,103,177	1,127,549
	1.2.1 POLIESTIRENO	0.0035 KG											
	NECESIDADES BRUTAS		0.00	2,323.66	0.44	904.67	5,152.57	0.00	189.54	1,291.44	10,046.72	7,361.12	3,946.42
NIVEL 2	DISPONIBILIDAD		0.00	16.14	15.70	10.83	33.26	33.26	23.72	37.28	25.56	44.44	58.02
	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	2,323.66	0.00	889.17	5,141.74	0.00	165.28	1,287.72	10,009.44	7,335.58	3,901.98
	RECEPCION PEDIDOS PLANIFICADOS		0.00	2,340.00	0.00	900.00	5,175.00	0.00	180.00	1,305.00	10,035.00	7,360.00	3,960.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		2,340.00	0.00	900.00	5,175.00	0.00	180.00	1,305.00	10,035.00	7,360.00	3,960.00	2,385.00

	1.3.1 POLIPROPILENO	0.00107 KG										
	NECESIDADES BRUTAS		0.00	670.21	0.13	276.63	1,575.21	0.00	67.95	394.81	3,071.43	2,250.40	1,206.48
	DISPONIBILIDAD		0.00	4.79	4.66	43.03	42.82	42.82	29.87	40.06	28.63	28.23	36.75
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	670.21	0.00	271.97	1,532.18	0.00	15.13	354.94	3,031.37	2,221.77	1,178.25
	RECEPCION PEDIDOS PLANIFICADOS		0.00	675.00	0.00	315.00	1,575.00	0.00	45.00	405.00	3,060.00	2,250.00	1,215.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	675.00	0.00	315.00	1,575.00	0.00	45.00	405.00	3,060.00	2,250.00	1,215.00

	1.3.2 COLORANTE	0.0000170 KG										
	NECESIDADES BRUTAS		0.00	10.65	0.00	4.40	25.03	0.00	0.02	6.27	48.80	35.75	19.17
	DISPONIBILIDAD		0.00	34.35	34.35	29.95	4.93	4.93	4.01	42.73	36.94	3.18	29.01
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	10.65	0.00	0.00	0.00	0.00	0.00	2.27	0.05	0.00	15.99
	RECEPCION PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	0.00	0.00	0.00	45.00	45.00	0.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	0.00	45.00	45.00	0.00	45.00	0.00

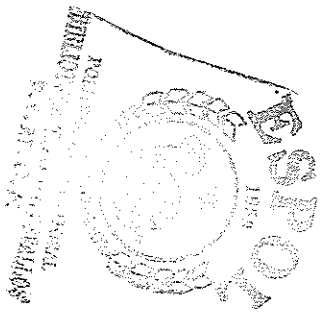
	1.4.1 POLIETILENO BAJA DENSIDAD	0.0001140 KG										
	NECESIDADES BRUTAS		0.00	75.69	0.01	29.47	167.83	0.00	0.17	42.00	327.24	239.78	128.54
	DISPONIBILIDAD		0.00	14.31	14.29	29.82	41.99	41.99	35.82	38.76	26.52	11.78	18.22
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	75.69	0.00	15.18	138.01	0.00	0.00	6.24	289.48	213.24	116.78
	RECEPCION PEDIDOS PLANIFICADOS		0.00	90.00	0.00	45.00	180.00	0.00	0.00	45.00	315.00	225.00	135.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		90.00	0.00	45.00	180.00	0.00	0.00	45.00	315.00	225.00	135.00	90.00

	1.4.2 COLORANTE	0.0000018 KG										
	NECESIDADES BRUTAS		0.00	1.20	0.00	0.47	2.65	0.00	0.10	0.66	5.17	3.79	2.03
	DISPONIBILIDAD		0.00	43.80	43.80	43.34	40.69	40.69	40.59	39.93	34.76	30.99	28.95
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO	0.0000000 KG										
	NECESIDADES BRUTAS		0.00	0.00	0.08	155.12	883.30	0.00	32.49	221.39	1,722.29	1,261.91	676.53
	DISPONIBILIDAD		0.00	0.00	44.92	24.60	41.51	41.51	9.01	13.62	0.33	43.42	41.89
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.08	110.20	858.49	0.00	0.00	212.98	1,709.87	1,261.58	633.11
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	45.00	135.00	900.00	0.00	0.00	225.00	1,710.00	1,305.00	675.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	45.00	135.00	900.00	0.00	0.00	225.00	1,710.00	1,305.00	675.00	405.00

	1.1.4.1 POLIACETAL NATURAL	0.0001700 KG										
	NECESIDADES BRUTAS		0.00	0.00	0.00	36.83	250.27	0.00	9.21	62.73	487.99	357.54	191.68
	DISPONIBILIDAD		0.00	0.00	0.00	6.17	27.91	27.91	18.70	0.97	7.99	34.45	22.77
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	30.83	242.09	0.00	0.00	44.03	487.01	349.55	187.23
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	45.00	270.00	0.00	0.00	45.00	495.00	384.00	180.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	45.00	270.00	0.00	0.00	45.00	495.00	384.00	180.00	135.00

	NEGRO EXP1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	lo:												
	Ft	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	It	0	0	0	0	0	0	0	0	0	0	0	0
	MPS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	1.NEGRO EXP1												
	NECESIDADES BRUTAS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
NIVEL 0	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	RECEPCION PEDIDOS PLANIFICADOS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	LANZAMIENTO PEDIDOS PLANIFICADOS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	1.1REPUESTO												
	NECESIDADES BRUTAS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
NIVEL 1	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	RECEPCION PEDIDOS PLANIFICADOS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	LANZAMIENTO PEDIDOS PLANIFICADOS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	1.2 BARRIL												
	NECESIDADES BRUTAS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
NIVEL 1	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	RECEPCION PEDIDOS PLANIFICADOS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	LANZAMIENTO PEDIDOS PLANIFICADOS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	1.3 TAPA												
	NECESIDADES BRUTAS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
NIVEL 1	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	RECEPCION PEDIDOS PLANIFICADOS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	LANZAMIENTO PEDIDOS PLANIFICADOS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	1.4 BOTON												
	NECESIDADES BRUTAS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
NIVEL 1	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	RECEPCION PEDIDOS PLANIFICADOS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	LANZAMIENTO PEDIDOS PLANIFICADOS	694,477	459,216	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS	579	383	677	0	256	1,452	0	53	361	2,806	2,052	1,098
NIVEL 1	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	579	383	677	0	256	1,452	0	53	361	2,806	2,052	1,098
	RECEPCION PEDIDOS PLANIFICADOS	579	383	677	0	256	1,452	0	53	361	2,806	2,052	1,098
	LANZAMIENTO PEDIDOS PLANIFICADOS	579	383	677	0	256	1,452	0	53	361	2,806	2,052	1,098



	1.0 CAJILLA												
	NECESIDADES BRUTAS	28,937	19,134	33,869	0	12,782	72,607	0	2,659	19,074	140,305	102,584	54,685
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	28,937	19,134	33,869	0	12,782	72,607	0	2,659	19,074	140,305	102,584	54,685
	RECEPCION PEDIDOS PLANIFICADOS	28,937	19,134	33,869	0	12,782	72,607	0	2,659	19,074	140,305	102,584	54,685
	LANZAMIENTO PEDIDOS PLANIFICADOS	28,937	19,134	33,869	0	12,782	72,607	0	2,659	19,074	140,305	102,584	54,685

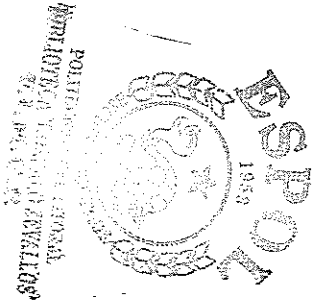
	1.1.1 PUNTO												
	NECESIDADES BRUTAS	694,477	459,215	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	DISPONIBILIDAD	1,395	17,171	4,326	4,177	22,417	4,849	4,849	16,043	7,260	14,937	2,913	10,077
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	673,018	457,029	795,074	0	302,583	1,720,151	0	59,957	417,740	3,360,063	2,447,087	1,314,323
	RECEPCION PEDIDOS PLANIFICADOS	675,000	475,000	800,000	0	325,000	1,725,000	0	75,000	428,000	3,375,000	2,450,000	1,325,000
	LANZAMIENTO PEDIDOS PLANIFICADOS	800,000	0	325,000	1,725,000	0	75,000	425,000	3,375,000	2,450,000	1,325,000	0	0

	1.1.2 TINTA												
	NECESIDADES BRUTAS	222.23	146.95	260.11	0.05	98.16	557.62	0.00	20.42	138.81	1,077.84	787.85	421.52
	DISPONIBILIDAD	47.16	0.21	40.10	40.06	41.89	84.27	84.27	63.85	25.04	47.60	59.95	30.14
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	152.84	89.79	259.90	0.00	56.11	515.73	0.00	0.00	74.96	1,052.50	740.35	391.66
	RECEPCION PEDIDOS PLANIFICADOS	200.00	100.00	300.00	0.00	100.00	600.00	0.00	0.00	100.00	1,100.00	800.00	400.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	300.00	0.00	100.00	600.00	0.00	0.00	100.00	1,100.00	800.00	400.00	0.00	0.00

	1.1.3 TUBO												
	NECESIDADES BRUTAS	694,477	459,215	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	694,477	459,215	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	RECEPCION PEDIDOS PLANIFICADOS	694,477	459,215	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	LANZAMIENTO PEDIDOS PLANIFICADOS	694,477	459,215	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236

	1.1.4 SOPORTE												
	NECESIDADES BRUTAS	694,477	459,215	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	694,477	459,215	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	RECEPCION PEDIDOS PLANIFICADOS	694,477	459,215	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236
	LANZAMIENTO PEDIDOS PLANIFICADOS	694,477	459,215	812,845	149	306,760	1,742,568	0	63,806	433,783	3,367,323	2,462,024	1,317,236

	1.2.1 POLIESTIRENO												
	NECESIDADES BRUTAS	2,430.67	1,607.25	2,844.95	0.52	1,073.66	6,098.99	0.00	223.32	1,518.24	11,785.63	8,617.09	4,610.33
	DISPONIBILIDAD	12.35	25.10	15.14	14.62	20.96	41.97	41.97	43.65	10.41	14.78	37.69	17.37
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	2,372.65	1,594.90	2,819.85	0.00	1,059.04	6,078.03	0.00	181.35	1,476.59	11,775.22	8,602.31	4,572.63
	RECEPCION PEDIDOS PLANIFICADOS	2,395.00	1,620.00	2,835.00	0.00	1,080.00	6,120.00	0.00	225.00	1,485.00	11,790.00	8,640.00	4,590.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	1,620.00	2,835.00	0.00	1,080.00	6,120.00	0.00	225.00	1,485.00	11,790.00	8,640.00	4,590.00	0.00



	1.3.1 POLIPROPILENO											
	NECESIDADES BRUTAS	743.09	491.36	869.74	0.16	328.23	1,864.55	0.00	68.27	464.15	3,603.04	2,634.37	1,409.44
	DISPONIBILIDAD	13.66	17.30	2.56	2.40	34.17	14.62	14.62	38.35	22.20	19.16	39.80	25.36
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	706.34	477.70	852.44	0.00	325.83	1,830.38	0.00	53.65	427.80	3,580.84	2,615.20	1,389.84
	RECEPCION PEDIDOS PLANIFICADOS	720.00	495.00	855.00	0.00	360.00	1,845.00	0.00	90.00	450.00	3,600.00	2,655.00	1,395.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	720.00	495.00	855.00	0.00	360.00	1,845.00	0.00	90.00	450.00	3,600.00	2,655.00	1,395.00

	1.3.2 COLORANTE											
	NECESIDADES BRUTAS	11.81	7.81	13.82	0.00	5.21	29.62	0.00	1.08	7.37	57.24	41.85	22.39
	DISPONIBILIDAD	17.21	9.40	49.59	40.59	35.37	5.74	5.74	4.66	42.28	30.04	33.18	10.79
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	4.42	0.00	0.00	0.00	0.00	0.00	2.72	14.96	11.82	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	45.00	45.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	45.00	0.00	0.00	0.00	0.00	0.00	45.00	45.00	45.00	0.00	0.00

	1.3.1 POLIETILENO BAJA DENSIDAD											
	NECESIDADES BRUTAS	79.17	52.35	92.65	0.02	34.97	198.65	0.00	7.27	49.45	383.87	280.67	150.16
	DISPONIBILIDAD	28.05	21.70	19.03	19.02	29.05	10.39	10.39	3.12	43.67	19.79	9.12	38.96
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	60.95	23.30	70.97	0.00	15.95	169.61	0.00	0.00	46.33	340.21	260.88	141.04
	RECEPCION PEDIDOS PLANIFICADOS	90.00	45.00	90.00	0.00	45.00	180.00	0.00	0.00	90.00	360.00	270.00	180.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	45.00	90.00	0.00	45.00	180.00	0.00	0.00	90.00	360.00	270.00	180.00	0.00

	1.4.2 COLORANTE											
	NECESIDADES BRUTAS	1.25	0.83	1.46	0.00	0.55	3.14	0.00	0.11	0.78	6.06	4.43	2.37
	DISPONIBILIDAD	27.70	26.87	25.41	25.41	24.85	21.72	21.72	21.60	20.82	14.76	10.33	7.96
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

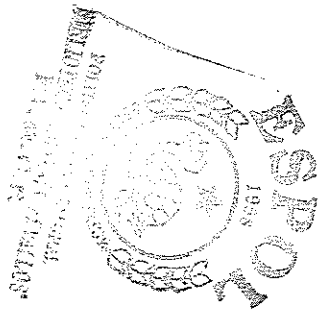
	1.1.3.1 POLIETILENO											
	NECESIDADES BRUTAS	410.69	276.53	487.71	0.09	184.06	1,045.54	0.00	38.28	260.27	2,020.39	1,477.21	790.34
	DISPONIBILIDAD	30.21	114.68	31.97	31.88	27.83	17.29	17.29	24.00	33.73	38.34	1.12	20.78
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	374.78	245.32	373.03	0.00	162.17	1,017.71	0.00	21.00	236.27	1,986.66	1,439.88	786.22
	RECEPCION PEDIDOS PLANIFICADOS	405.00	360.00	405.00	0.00	180.00	1,035.00	0.00	45.00	270.00	2,025.00	1,440.00	810.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	360.00	405.00	0.00	180.00	1,035.00	0.00	45.00	270.00	2,025.00	1,440.00	810.00	0.00

	1.1.4.1 POLIACETAL NATURAL											
	NECESIDADES BRUTAS	118.06	79.07	139.18	0.03	52.15	296.24	0.00	10.85	73.74	572.44	418.54	223.83
	DISPONIBILIDAD	39.71	8.64	3.46	3.43	41.28	15.04	15.04	4.20	20.45	33.01	19.47	20.64
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	95.29	38.36	131.54	0.00	48.72	254.96	0.00	0.00	68.65	551.99	385.53	204.46
	RECEPCION PEDIDOS PLANIFICADOS	135.00	45.00	135.00	0.00	90.00	270.00	0.00	0.00	90.00	585.00	405.00	225.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	45.00	135.00	0.00	90.00	270.00	0.00	0.00	90.00	585.00	405.00	225.00	0.00

APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

	ROJO EXP1	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
	Io:	185,131											
	Pt		211,491	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	It		0	0	0	0	0	0	0	0	0	0	0
	MPS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	1.ROJO EXP1												
	NECESIDADES BRUTAS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	RECEPCION PEDIDOS PLANIFICADOS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	LANZAMIENTO PEDIDOS PLANIFICADOS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	1.1REFUERZO												
	NECESIDADES BRUTAS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	RECEPCION PEDIDOS PLANIFICADOS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	LANZAMIENTO PEDIDOS PLANIFICADOS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	1.2 BARRIL												
	NECESIDADES BRUTAS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	RECEPCION PEDIDOS PLANIFICADOS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	LANZAMIENTO PEDIDOS PLANIFICADOS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	1.3 TAPA												
	NECESIDADES BRUTAS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	RECEPCION PEDIDOS PLANIFICADOS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	LANZAMIENTO PEDIDOS PLANIFICADOS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	1.4 BOTON												
	NECESIDADES BRUTAS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	RECEPCION PEDIDOS PLANIFICADOS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	LANZAMIENTO PEDIDOS PLANIFICADOS		46,360	0	0	0	0	121,273	382,213	349,119	939,984	389,960	119,317
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS		39	0	0	0	0	101	319	291	783	325	99
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		39	0	0	0	0	101	319	291	783	325	99
	RECEPCION PEDIDOS PLANIFICADOS		39	0	0	0	0	101	319	291	783	325	99
	LANZAMIENTO PEDIDOS PLANIFICADOS		39	0	0	0	0	101	319	291	783	325	99

NIVEL 1	1.0 CAJILLA											
	NECESIDADES BRUTAS		1,932	0	0	0	0	5,053	15,926	14,647	39,165	16,248	4,972
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		1,932	0	0	0	0	5,053	15,926	14,647	39,165	16,248	4,972
	RECEPCION PEDIDOS PLANIFICADOS		1,932	0	0	0	0	5,053	15,926	14,647	39,165	16,248	4,972
	LANZAMIENTO PEDIDOS PLANIFICADOS		1,932	0	0	0	0	5,053	15,926	14,647	39,165	16,248	4,972
NIVEL 2	1.1.1 PUNTO												
	NECESIDADES BRUTAS		46,360	0	0	0	0	121,273	382,213	349,119	939,964	389,960	119,317
	DISPONIBILIDAD	69,500	43,140	43,140	43,140	43,140	43,140	21,867	14,854	15,535	571	10,610	16,293
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	78,133	360,346	334,465	924,429	389,390	108,707
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	100,000	375,000	350,000	925,000	400,000	125,000
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	100,000	375,000	350,000	925,000	400,000	125,000	300,000	275,000
NIVEL 2	1.1.2 TINTA	0.00032 lt											
	NECESIDADES BRUTAS		14.84	0.00	0.00	0.00	0.00	38.81	122.31	111.72	300.79	124.79	38.18
	DISPONIBILIDAD	12.00	97.16	97.16	97.16	97.16	97.16	58.35	36.05	24.33	23.54	99.76	60.57
	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		2.84	0.00	0.00	0.00	0.00	0.00	63.95	75.67	276.46	101.24	0.00
	RECEPCION PEDIDOS PLANIFICADOS		100.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	300.00	200.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	100.00	100.00	300.00	200.00	0.00	100.00	100.00
NIVEL 2	1.1.3 TUBO												
	NECESIDADES BRUTAS		46,360	0	0	0	0	121,273	382,213	349,119	939,964	389,960	119,317
	DISPONIBILIDAD	34,200	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		12,160	0	0	0	0	121,273	382,213	349,119	939,964	389,960	119,317
	RECEPCION PEDIDOS PLANIFICADOS		12,160	0	0	0	0	121,273	382,213	349,119	939,964	389,960	119,317
	LANZAMIENTO PEDIDOS PLANIFICADOS		12,160	0	0	0	0	121,273	382,213	349,119	939,964	389,960	119,317
NIVEL 2	1.1.4 SOPORTE												
	NECESIDADES BRUTAS		46,360	0	0	0	0	121,273	382,213	349,119	939,964	389,960	119,317
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		46,360	0	0	0	0	121,273	382,213	349,119	939,964	389,960	119,317
	RECEPCION PEDIDOS PLANIFICADOS		46,360	0	0	0	0	121,273	382,213	349,119	939,964	389,960	119,317
	LANZAMIENTO PEDIDOS PLANIFICADOS		46,360	0	0	0	0	121,273	382,213	349,119	939,964	389,960	119,317
NIVEL 2	1.2.1 POLIESTIRENO	0.0035 KG											
	NECESIDADES BRUTAS		162.26	0.00	0.00	0.00	0.00	424.45	1,337.75	1,221.92	3,289.88	1,364.86	417.61
	DISPONIBILIDAD		17.74	17.74	17.74	17.74	17.74	43.29	10.54	3.62	43.75	28.89	16.29
	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		162.26	0.00	0.00	0.00	0.00	406.71	1,294.46	1,211.08	3,289.25	1,321.11	399.72
	RECEPCION PEDIDOS PLANIFICADOS		180.00	0.00	0.00	0.00	0.00	450.00	1,305.00	1,215.00	3,330.00	1,350.00	405.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	450.00	1,305.00	1,215.00	3,330.00	1,350.00	405.00	1,035.00



	1.3.1 POLIPROPILENO	0.00107 KG											
	NECESIDADES BRUTAS		49.61	0.00	0.00	0.00	0.00	129.76	408.97	373.56	1,065.76	417.20	127.67
	DISPONIBILIDAD		40.39	40.39	40.39	40.39	40.39	0.63	41.60	28.11	12.35	0.00	0.00
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		49.61	0.00	0.00	0.00	0.00	89.37	409.34	331.89	977.65	404.91	127.58
	RECEPCION PEDIDOS PLANIFICADOS		90.00	0.00	0.00	0.00	0.00	90.00	450.00	360.00	990.00	405.00	135.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		90.00	0.00	0.00	0.00	0.00	90.00	450.00	360.00	990.00	405.00	135.00

	1.3.2 COLORANTE	0.000017 KG											
	NECESIDADES BRUTAS		0.79	0.00	0.00	0.00	0.00	2.06	6.50	5.94	15.88	6.63	2.03
	DISPONIBILIDAD		44.21	44.21	44.21	44.21	44.21	42.15	35.65	29.72	13.74	7.11	5.08
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.4.1 POLIETILENO BAJA DENSIDAD	0.000114 KG											
	NECESIDADES BRUTAS		5.29	0.00	0.00	0.00	0.00	13.83	43.57	39.80	107.16	44.46	13.60
	DISPONIBILIDAD		39.71	39.71	39.71	39.71	39.71	25.88	27.32	32.52	15.36	15.91	2.30
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		5.29	0.00	0.00	0.00	0.00	0.00	17.68	12.48	74.64	29.09	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	0.00	45.00	45.00	90.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	45.00	45.00	90.00	45.00	0.00	45.00

	1.4.2 COLORANTE	0.0000016 KG											
	NECESIDADES BRUTAS		0.08	0.00	0.00	0.00	0.00	0.22	0.69	0.63	1.69	0.70	0.21
	DISPONIBILIDAD		44.92	44.92	44.92	44.92	44.92	44.70	44.01	43.30	41.60	40.90	40.77
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO	0.0006000 KG											
	NECESIDADES BRUTAS		7.30	0.00	0.00	0.00	0.00	72.76	229.33	209.47	563.98	233.99	71.59
	DISPONIBILIDAD		37.70	37.70	37.70	37.70	37.70	9.84	5.61	21.14	42.16	33.19	6.60
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		7.30	0.00	0.00	0.00	0.00	35.06	219.39	203.86	542.84	191.81	39.40
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	45.00	225.00	225.00	225.00	585.00	225.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	225.00	225.00	585.00	225.00	45.00	180.00

	1.1.4.1 POLIACETAL NATURAL	0.0001700 KG											
	NECESIDADES BRUTAS		7.69	0.00	0.00	0.00	0.00	20.62	64.98	59.35	159.79	66.29	20.28
	DISPONIBILIDAD		37.12	37.12	37.12	37.12	37.12	16.50	41.53	27.18	2.39	26.09	5.80
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		7.69	0.00	0.00	0.00	0.00	0.00	46.47	17.82	132.62	63.91	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	90.00	45.00	135.00	90.00	0.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	90.00	45.00	135.00	90.00	0.00	45.00

	ROJO EXP1	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	Io:												
	Ft	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	It	0	0	0	0	0	0	0	0	0	0	0	0
	MPS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	1.ROJO EXP1												
	NECESIDADES BRUTAS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	RECEPCION PEDIDOS PLANIFICADOS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	LANZAMIENTO PEDIDOS PLANIFICADOS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	1.1REFUERZO												
	NECESIDADES BRUTAS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	RECEPCION PEDIDOS PLANIFICADOS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	LANZAMIENTO PEDIDOS PLANIFICADOS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	1.2 BARRIL												
	NECESIDADES BRUTAS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	RECEPCION PEDIDOS PLANIFICADOS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	LANZAMIENTO PEDIDOS PLANIFICADOS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	1.3 TAPA												
	NECESIDADES BRUTAS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	RECEPCION PEDIDOS PLANIFICADOS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	LANZAMIENTO PEDIDOS PLANIFICADOS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	1.4 BOTON												
	NECESIDADES BRUTAS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	RECEPCION PEDIDOS PLANIFICADOS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	LANZAMIENTO PEDIDOS PLANIFICADOS	298,642	252,668	15,973	0	0	0	143,211	450,326	410,425	1,102,645	456,492	139,388
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS	249	211	13	0	0	0	119	375	342	919	380	116
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	249	211	13	0	0	0	119	375	342	919	380	116
	RECEPCION PEDIDOS PLANIFICADOS	249	211	13	0	0	0	119	375	342	919	380	116
	LANZAMIENTO PEDIDOS PLANIFICADOS	249	211	13	0	0	0	119	375	342	919	380	116

	1.0 CAJILLA												
	NECESIDADES BRUTAS	12,443	10,536	668	0	0	0	5,667	19,764	17,101	45,944	19,020	5,808
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	12,443	10,536	668	0	0	0	5,667	19,764	17,101	45,944	19,020	5,808
	RECEPCION PEDIDOS PLANIFICADOS	12,443	10,536	668	0	0	0	5,667	19,764	17,101	45,944	19,020	5,808
	LANZAMIENTO PEDIDOS PLANIFICADOS	12,443	10,536	668	0	0	0	5,667	19,764	17,101	45,944	19,020	5,808

	1.1.1 PUNTO												
	NECESIDADES BRUTAS	299,642	252,868	15,973	0	0	0	143,211	450,328	410,425	1,102,645	456,492	139,388
	DISPONIBILIDAD	17,651	39,783	23,810	23,810	23,810	23,810	5,600	5,271	19,846	17,201	10,709	21,320
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	282,349	236,217	0	0	0	0	119,400	444,729	405,164	1,082,799	439,291	128,650
	RECEPCION PEDIDOS PLANIFICADOS	300,000	275,000	0	0	0	0	125,000	450,000	425,000	1,100,000	450,000	150,000
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	0	0	125,000	450,000	425,000	1,100,000	450,000	150,000	0	0

	1.1.2 TINTA												
	NECESIDADES BRUTAS	95.67	80.82	5.11	0.00	0.00	0.00	45.83	144.11	131.34	352.85	146.08	44.60
	DISPONIBILIDAD	84.01	81.09	75.98	75.98	75.98	75.98	30.15	75.05	32.71	69.86	11.78	56.18
NIVEL 2	RECEPCIONES PROGRAMADAS	1.00	2.00	0.00	0.00	0.00	0.00	0.00	11.00	11.00	11.00	11.00	11.00
	NECESIDADES NETAS	35.99	19.91	0.00	0.00	0.00	0.00	0.00	124.95	87.29	331.14	89.21	43.82
	RECEPCION PEDIDOS PLANIFICADOS	100.00	100.00	0.00	0.00	0.00	0.00	0.00	200.00	100.00	400.00	100.00	100.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	200.00	100.00	400.00	100.00	100.00	0.00	0.00

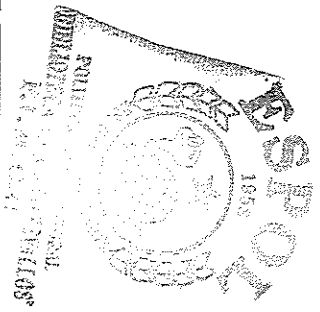
	1.1.3 TUBO												
	NECESIDADES BRUTAS	299,642	252,868	15,973	0	0	0	143,211	450,328	410,425	1,102,645	456,492	139,388
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	299,642	252,868	15,973	0	0	0	143,211	450,328	410,425	1,102,645	456,492	139,388
	RECEPCION PEDIDOS PLANIFICADOS	299,642	252,868	15,973	0	0	0	143,211	450,328	410,425	1,102,645	456,492	139,388
	LANZAMIENTO PEDIDOS PLANIFICADOS	299,642	252,868	15,973	0	0	0	143,211	450,328	410,425	1,102,645	456,492	139,388

	1.1.4 SOPORTE												
	NECESIDADES BRUTAS	299,642	252,868	15,973	0	0	0	143,211	450,328	410,425	1,102,645	456,492	139,388
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	299,642	252,868	15,973	0	0	0	143,211	450,328	410,425	1,102,645	456,492	139,388
	RECEPCION PEDIDOS PLANIFICADOS	299,642	252,868	15,973	0	0	0	143,211	450,328	410,425	1,102,645	456,492	139,388
	LANZAMIENTO PEDIDOS PLANIFICADOS	299,642	252,868	15,973	0	0	0	143,211	450,328	410,425	1,102,645	456,492	139,388

	1.2.1 POLIESTIRENO												
	NECESIDADES BRUTAS	1,045.25	885.04	55.90	0.00	0.00	0.00	501.24	1,576.15	1,436.49	3,859.26	1,597.72	487.86
	DISPONIBILIDAD	6.03	20.99	10.09	10.09	10.09	10.09	3.85	2.70	6.21	16.95	39.23	1.37
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	1,028.97	879.01	34.91	0.00	0.00	0.00	491.15	1,572.30	1,433.79	3,853.05	1,560.77	449.63
	RECEPCION PEDIDOS PLANIFICADOS	1,035.00	900.00	45.00	0.00	0.00	0.00	495.00	1,575.00	1,440.00	3,870.00	1,620.00	450.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	900.00	45.00	0.00	0.00	0.00	495.00	1,575.00	1,440.00	3,870.00	1,620.00	450.00	0.00

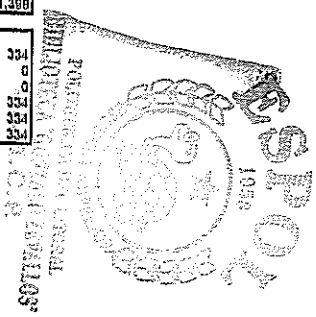
APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

		AZUL 2	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
		lo:	81,541											
		Ft		536,691	1,357,342	1,016,309	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
		Ii		0	0	0	0	0	0	0	0	0	0	0
		MPS		455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	AZUL 2													
	NECESIDADES BRUTAS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	DISPONIBILIDAD			0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS			0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	RECEPCION PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	LANZAMIENTO PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	1.1REPUESTO													
	NECESIDADES BRUTAS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	DISPONIBILIDAD			0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS			0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	RECEPCION PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	LANZAMIENTO PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	1.2 BARRIL													
	NECESIDADES BRUTAS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	DISPONIBILIDAD			0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS			0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	RECEPCION PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	LANZAMIENTO PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	1.3 TAPA													
	NECESIDADES BRUTAS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	DISPONIBILIDAD			0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS			0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	RECEPCION PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	LANZAMIENTO PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	1.4 BOTON													
	NECESIDADES BRUTAS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	DISPONIBILIDAD			0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS			0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	RECEPCION PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	LANZAMIENTO PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	379,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	1.5 CAJA MASTER													
	NECESIDADES BRUTAS			379	0	0	908	316	996	988	712	318	415	334
	DISPONIBILIDAD			0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS			0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS			379	0	0	908	316	996	988	712	318	415	334
	RECEPCION PEDIDOS PLANIFICADOS			379	0	0	908	316	996	988	712	318	415	334
	LANZAMIENTO PEDIDOS PLANIFICADOS			379	0	0	908	316	996	988	712	318	415	334



APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

		AZUL 2	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
		ls:	61,541											
		Ft		536,691	1,257,342	1,016,309	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
		It		0	0	0	0	0	0	0	0	0	0	0
		MPS		455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	AZUL 2													
	NECESIDADES BRUTAS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	DISPONIBILIDAD			0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS			0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	RECEPCION PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	LANZAMIENTO PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	1.1REPUESTO													
	NECESIDADES BRUTAS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	DISPONIBILIDAD			0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS			0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	RECEPCION PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	LANZAMIENTO PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	1.2 BARRIL													
	NECESIDADES BRUTAS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	DISPONIBILIDAD			0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS			0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	RECEPCION PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	LANZAMIENTO PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	1.3 TAPA													
	NECESIDADES BRUTAS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	DISPONIBILIDAD			0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS			0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	RECEPCION PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	LANZAMIENTO PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	1.4 BOTON													
	NECESIDADES BRUTAS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	DISPONIBILIDAD			0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS			0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	RECEPCION PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	LANZAMIENTO PEDIDOS PLANIFICADOS			455,350	0	0	1,090,163	378,126	1,195,405	1,185,976	854,691	381,699	498,069	401,398
	1.5 CAJA MASTER													
	NECESIDADES BRUTAS			379	0	0	908	316	996	988	712	318	415	334
	DISPONIBILIDAD			0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS			0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS			379	0	0	908	316	996	988	712	318	415	334
	RECEPCION PEDIDOS PLANIFICADOS			379	0	0	908	316	996	988	712	318	415	334
	LANZAMIENTO PEDIDOS PLANIFICADOS			379	0	0	908	316	996	988	712	318	415	334



	1.4.1 POLIETILENO BAJA DENSIDAD	0.000114 KG										
	NECESIDADES BRUTAS		51.91	0.00	0.00	124.28	43.22	136.28	135.20	97.46	43.51	66.78	45.76
	DISPONIBILIDAD		38.00	38.09	38.09	3.81	5.59	4.32	4.11	41.66	43.14	31.36	30.60
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		51.91	0.00	0.00	86.19	39.41	130.68	130.89	93.34	1.86	13.64	14.40
	RECEPCION PEDIDOS PLANIFICADOS		90.00	0.00	0.00	90.00	45.00	135.00	135.00	135.00	45.00	45.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	90.00	45.00	135.00	135.00	135.00	45.00	45.00	45.00	90.00
	1.4.2 COLORANTE	0.000002 KG											
	NECESIDADES BRUTAS		0.92	0.00	0.00	1.98	0.68	2.15	2.13	1.54	0.69	0.90	0.72
	DISPONIBILIDAD		44.19	44.16	44.16	42.22	41.54	39.38	37.25	35.71	35.02	34.13	33.40
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.1.3.1 POLIETILENO	0.000600 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	360.31	237.48	717.24	711.56	512.93	228.02	299.84	240.84
	DISPONIBILIDAD		0.00	0.00	0.00	14.69	12.22	14.97	23.39	5.45	1.44	17.59	1.76
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	360.31	212.78	705.03	699.61	489.55	223.58	297.41	223.24
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	495.00	225.00	720.00	720.00	495.00	225.00	315.00	225.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	495.00	225.00	720.00	720.00	495.00	225.00	315.00	225.00	450.00
	1.1.3.2 COLORANTE	0.000017 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	11.06	6.45	20.32	20.16	14.53	6.49	8.47	6.82
	DISPONIBILIDAD		0.00	0.00	0.00	33.94	27.50	7.17	32.01	17.49	10.99	2.52	40.70
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	11.06	0.00	0.00	12.99	0.00	0.00	0.00	4.30
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	45.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	45.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00
	1.1.4.1 POLIACETAL NATURAL	0.000170 KG											
	NECESIDADES BRUTAS		77.41	0.00	0.00	185.33	64.45	203.22	201.62	145.33	64.89	84.67	68.24
	DISPONIBILIDAD		12.59	12.59	12.59	7.26	32.81	9.59	32.98	22.65	2.76	8.08	29.85
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		77.41	0.00	0.00	172.74	57.19	170.41	162.02	112.35	42.24	61.92	60.15
	RECEPCION PEDIDOS PLANIFICADOS		90.00	0.00	0.00	180.00	90.00	180.00	225.00	135.00	45.00	90.00	90.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		180.00	90.00	180.00	225.00	135.00	45.00	90.00	90.00	135.00	90.00	270.00
	1.1.4.2 COLORANTE	0.000027 KG											
	NECESIDADES BRUTAS		12.29	0.00	0.00	29.43	10.24	32.28	32.02	23.08	10.31	13.45	10.84
	DISPONIBILIDAD		32.71	32.71	32.71	3.27	38.03	5.76	18.74	40.66	30.35	16.90	6.06
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		12.29	0.00	0.00	0.00	6.97	0.00	26.26	4.34	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	45.00	0.00	45.00	45.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	45.00	0.00	45.00	45.00	0.00	0.00	0.00	45.00

	AZUL 2	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	lo:												
	Ft	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	It	0	0	0	0	0	0	0	0	0	0	0	0
	MPS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	AZUL 2												
	NECESIDADES BRUTAS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	RECEPCION PEDIDOS PLANIFICADOS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	LANZAMIENTO PEDIDOS PLANIFICADOS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	1.1REPUESTO												
	NECESIDADES BRUTAS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	RECEPCION PEDIDOS PLANIFICADOS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	LANZAMIENTO PEDIDOS PLANIFICADOS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	1.2 BARRIL												
	NECESIDADES BRUTAS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	RECEPCION PEDIDOS PLANIFICADOS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	LANZAMIENTO PEDIDOS PLANIFICADOS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	1.3 TAPA												0
	NECESIDADES BRUTAS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	RECEPCION PEDIDOS PLANIFICADOS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	LANZAMIENTO PEDIDOS PLANIFICADOS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	1.4 BOTON												
	NECESIDADES BRUTAS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	RECEPCION PEDIDOS PLANIFICADOS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	LANZAMIENTO PEDIDOS PLANIFICADOS	716,784	641,710	1,498,887	1,207,265	1,293,094	449,621	1,411,230	1,398,925	1,004,729	447,637	582,889	466,799
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS	597	535	1,249	1,006	1,078	374	1,176	1,164	837	373	486	391
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	597	535	1,249	1,006	1,078	374	1,176	1,164	837	373	486	391
	RECEPCION PEDIDOS PLANIFICADOS	597	535	1,249	1,006	1,078	374	1,176	1,164	837	373	486	391
	LANZAMIENTO PEDIDOS PLANIFICADOS	597	535	1,249	1,006	1,078	374	1,176	1,164	837	373	486	391

	1.6 CAJILLA												
	NECESIDADES BRUTAS	29,866	26,738	62,454	50,304	53,879	18,693	58,601	58,205	41,864	18,652	24,287	19,533
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	29,866	26,738	62,454	50,304	53,879	18,693	58,601	58,205	41,864	18,652	24,287	19,533
	RECEPCION PEDIDOS PLANIFICADOS	29,866	26,738	62,454	50,304	53,879	18,693	58,601	58,205	41,864	18,652	24,287	19,533
	LANZAMIENTO PEDIDOS PLANIFICADOS	29,866	26,738	62,454	50,304	53,879	18,693	58,601	58,205	41,864	18,652	24,287	19,533
	1.1.1 PUNTO												
	NECESIDADES BRUTAS	716,784	641,710	1,498,897	1,207,295	1,293,094	448,621	1,411,230	1,396,925	1,004,729	447,637	582,889	468,798
	DISPONIBILIDAD	5,341	13,631	14,744	7,459	14,365	15,744	4,514	7,589	2,660	5,223	22,334	3,535
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	694,659	636,365	1,485,256	1,192,541	1,285,635	434,256	1,395,486	1,392,411	997,140	444,777	577,668	446,464
	RECEPCION PEDIDOS PLANIFICADOS	700,000	650,000	1,500,000	1,200,000	1,300,000	450,000	1,400,000	1,400,000	1,000,000	450,000	600,000	450,000
	LANZAMIENTO PEDIDOS PLANIFICADOS	1,500,000	1,200,000	1,300,000	450,000	1,400,000	1,400,000	1,000,000	450,000	600,000	450,000	0	0
	1.1.2 TINTA												
	NECESIDADES BRUTAS	229.37	205.35	479.64	386.33	413.70	143.59	451.59	447.02	321.51	143.24	186.52	150.02
	DISPONIBILIDAD	9.17	5.82	24.17	37.84	24.05	60.49	29.90	61.88	60.37	17.13	30.60	60.59
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	190.83	199.18	475.83	382.16	375.95	119.51	371.10	418.12	239.63	92.87	169.40	119.41
	RECEPCION PEDIDOS PLANIFICADOS	200.00	200.00	500.00	400.00	400.00	200.00	400.00	500.00	300.00	100.00	200.00	200.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	500.00	400.00	400.00	200.00	400.00	500.00	300.00	100.00	200.00	200.00	0.00	0.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS	716,784	641,710	1,498,897	1,207,295	1,293,094	448,621	1,411,230	1,396,925	1,004,729	447,637	582,889	468,798
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	716,784	641,710	1,498,897	1,207,295	1,293,094	448,621	1,411,230	1,396,925	1,004,729	447,637	582,889	468,798
	RECEPCION PEDIDOS PLANIFICADOS	716,784	641,710	1,498,897	1,207,295	1,293,094	448,621	1,411,230	1,396,925	1,004,729	447,637	582,889	468,798
	LANZAMIENTO PEDIDOS PLANIFICADOS	716,784	641,710	1,498,897	1,207,295	1,293,094	448,621	1,411,230	1,396,925	1,004,729	447,637	582,889	468,798
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS	716,784	641,710	1,498,897	1,207,295	1,293,094	448,621	1,411,230	1,396,925	1,004,729	447,637	582,889	468,798
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	716,784	641,710	1,498,897	1,207,295	1,293,094	448,621	1,411,230	1,396,925	1,004,729	447,637	582,889	468,798
	RECEPCION PEDIDOS PLANIFICADOS	716,784	641,710	1,498,897	1,207,295	1,293,094	448,621	1,411,230	1,396,925	1,004,729	447,637	582,889	468,798
	LANZAMIENTO PEDIDOS PLANIFICADOS	716,784	641,710	1,498,897	1,207,295	1,293,094	448,621	1,411,230	1,396,925	1,004,729	447,637	582,889	468,798
	1.2.1 POLIESTIRENO												
	NECESIDADES BRUTAS	2,508.75	2,246.98	5,246.11	4,225.50	4,528.83	1,570.17	4,939.31	4,889.24	3,518.65	1,568.73	2,040.11	1,640.79
	DISPONIBILIDAD	8.99	13.01	31.00	36.41	19.68	16.41	28.10	41.66	35.31	43.68	28.47	7.67
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	2,466.01	2,236.99	5,233.10	4,193.89	4,489.42	1,558.59	4,923.90	4,863.14	3,474.69	1,531.42	1,998.63	1,612.33
	RECEPCION PEDIDOS PLANIFICADOS	2,475.00	2,250.00	5,265.00	4,230.00	4,500.00	1,575.00	4,950.00	4,905.00	3,510.00	1,575.00	2,025.00	1,620.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	2,250.00	5,265.00	4,230.00	4,500.00	1,575.00	4,950.00	4,905.00	3,510.00	1,575.00	2,025.00	1,620.00	0.00
	1.3.1 REGINA K												
	NECESIDADES BRUTAS	946.16	847.06	1,979.63	1,593.62	1,708.69	592.18	1,862.82	1,843.94	1,326.24	590.88	769.41	618.81
	DISPONIBILIDAD	0.31	8.25	9.72	36.10	39.22	32.04	14.21	15.27	39.03	33.15	29.74	39.02
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	944.69	846.75	1,970.28	1,593.90	1,670.78	562.98	1,830.79	1,828.79	1,310.97	551.85	739.26	590.08
	RECEPCION PEDIDOS PLANIFICADOS	945.00	855.00	1,980.00	1,620.00	1,710.00	585.00	1,845.00	1,845.00	1,350.00	585.00	765.00	630.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	945.00	855.00	1,980.00	1,620.00	1,710.00	585.00	1,845.00	1,845.00	1,350.00	585.00	765.00	630.00

	1.4.1 POLIETILENO BAJA DENSIDAD											
	NECESIDADES BRUTAS	81.71	73.15	170.87	137.63	147.41	81.14	160.86	169.26	114.04	51.03	60.46	53.44
	DISPONIBILIDAD	35.89	10.74	10.86	17.23	4.62	43.68	17.60	36.55	14.01	7.08	31.53	23.00
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	51.11	34.26	160.14	117.77	130.18	46.32	117.20	141.45	76.99	37.02	58.47	21.92
	RECEPCION PEDIDOS PLANIFICADOS	90.00	45.00	180.00	135.00	135.00	90.00	135.00	180.00	90.00	45.00	90.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	45.00	180.00	135.00	135.00	90.00	135.00	180.00	90.00	45.00	90.00	45.00	0.00

	1.4.2 COLORANTE											
	NECESIDADES BRUTAS	1.29	1.16	2.70	2.17	2.33	0.81	2.54	2.51	1.81	0.81	1.05	0.84
	DISPONIBILIDAD	32.11	30.99	28.28	26.09	23.76	22.95	20.41	17.90	16.09	15.28	14.23	13.39
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO											
	NECESIDADES BRUTAS	430.07	385.03	899.33	724.37	775.86	269.17	846.74	838.18	602.64	268.59	349.73	281.28
	DISPONIBILIDAD	21.68	41.66	42.33	37.96	27.10	27.93	36.19	9.03	35.20	36.61	1.88	36.60
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	428.32	363.34	857.67	682.04	737.90	242.07	810.81	801.97	594.80	233.39	313.12	276.40
	RECEPCION PEDIDOS PLANIFICADOS	450.00	405.00	900.00	720.00	765.00	270.00	855.00	810.00	630.00	270.00	315.00	315.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	405.00	900.00	720.00	765.00	270.00	855.00	810.00	630.00	270.00	315.00	315.00	0.00

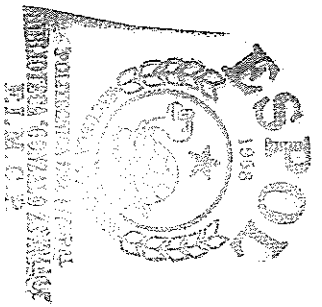
	1.1.3.2 COLORANTE											
	NECESIDADES BRUTAS	12.19	10.91	25.48	20.52	21.98	7.63	23.99	23.75	17.08	7.61	9.91	7.97
	DISPONIBILIDAD	28.51	17.61	37.12	16.80	39.62	31.99	8.00	29.25	12.17	4.58	39.65	31.68
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	7.88	0.00	6.38	0.00	0.00	15.75	0.00	0.00	5.35	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	45.00	0.00	45.00	0.00	0.00	45.00	0.00	0.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	45.00	0.00	45.00	0.00	0.00	45.00	0.00	0.00	45.00	0.00	0.00

	1.1.4.1 POLIACETAL NATURAL											
	NECESIDADES BRUTAS	121.85	109.09	254.81	205.24	219.63	76.27	239.91	237.48	170.80	76.10	99.09	79.70
	DISPONIBILIDAD	41.69	20.60	33.09	3.85	4.03	11.75	34.85	14.38	14.67	16.47	43.39	41.69
NIVEL 3	RECEPCIONES PROGRAMADAS	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00
	NECESIDADES NETAS	93.01	99.10	236.91	176.15	220.97	76.24	239.15	210.62	166.43	71.53	91.02	49.31
	RECEPCION PEDIDOS PLANIFICADOS	135.00	90.00	270.00	180.00	225.00	90.00	270.00	225.00	180.00	90.00	135.00	90.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	180.00	225.00	90.00	270.00	225.00	180.00	90.00	135.00	90.00	0.00	0.00	0.00

	1.1.4.2 COLORANTE											
	NECESIDADES BRUTAS	19.35	17.33	40.47	32.60	34.91	12.11	38.10	37.72	27.13	12.09	15.74	12.66
	DISPONIBILIDAD	31.71	14.38	16.91	31.32	41.40	29.29	36.19	43.47	16.34	4.26	33.52	20.86
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	13.29	0.00	28.09	13.68	3.60	0.00	0.91	1.53	0.00	0.00	11.48	0.00
	RECEPCION PEDIDOS PLANIFICADOS	45.00	0.00	45.00	45.00	45.00	0.00	45.00	45.00	0.00	0.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	45.00	45.00	45.00	0.00	45.00	45.00	0.00	0.00	45.00	0.00	0.00

APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

	NEGRO 2	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
	Io:	63,400											
	Ft		320,842	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	It		0	0	0	0	0	0	0	0	0	0	0
	MPS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	NEGRO 2												
	NECESIDADES BRUTAS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	RECEPCION PEDIDOS PLANIFICADOS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	LANZAMIENTO PEDIDOS PLANIFICADOS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	1.1REPUESTO												
	NECESIDADES BRUTAS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	RECEPCION PEDIDOS PLANIFICADOS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	LANZAMIENTO PEDIDOS PLANIFICADOS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	1.2 BARRIL												
	NECESIDADES BRUTAS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	RECEPCION PEDIDOS PLANIFICADOS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	LANZAMIENTO PEDIDOS PLANIFICADOS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	1.3 TAPA												
	NECESIDADES BRUTAS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	RECEPCION PEDIDOS PLANIFICADOS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	LANZAMIENTO PEDIDOS PLANIFICADOS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	1.4 BOTÓN												
	NECESIDADES BRUTAS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	RECEPCION PEDIDOS PLANIFICADOS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	LANZAMIENTO PEDIDOS PLANIFICADOS		257,442	641,627	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS		216	535	623	317	131	575	730	520	356	377	161
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		216	535	623	317	131	575	730	520	356	377	161
	RECEPCION PEDIDOS PLANIFICADOS		215	535	623	317	131	575	730	520	356	377	161
	LANZAMIENTO PEDIDOS PLANIFICADOS		215	535	623	317	131	575	730	520	356	377	161



NIVEL 1	1.0 CAJILLA												
	NECESIDADES BRUTAS		10,727	28,730	31,157	15,863	6,548	28,765	36,514	25,998	17,783	18,865	8,073
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		10,727	28,730	31,157	15,863	6,548	28,765	36,514	25,998	17,783	18,865	8,073
	RECEPCION PEDIDOS PLANIFICADOS		10,727	28,730	31,157	15,863	6,548	28,765	36,514	25,998	17,783	18,865	8,073
	LANZAMIENTO PEDIDOS PLANIFICADOS		10,727	28,730	31,157	15,863	6,548	28,765	36,514	25,998	17,783	18,865	8,073

NIVEL 2	1.1.1 PUNTO												
	NECESIDADES BRUTAS		257,442	641,527	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	DISPONIBILIDAD	672,000	414,558	23,031	25,260	19,557	12,411	22,061	20,717	21,820	20,035	17,268	23,525
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	220,969	724,740	355,443	137,969	677,939	854,283	603,180	404,985	432,732	176,476
	RECEPCION PEDIDOS PLANIFICADOS		0	260,000	750,000	375,000	150,000	700,000	875,000	625,000	425,000	450,000	200,000
	LANZAMIENTO PEDIDOS PLANIFICADOS		750,000	375,000	150,000	700,000	875,000	625,000	425,000	450,000	200,000	525,000	400,000

NIVEL 2	1.1.2 TINTA	*0.00032 lt											
	NECESIDADES BRUTAS		82.38	205.29	239.29	121.92	50.29	220.91	280.43	199.65	136.57	144.99	62.00
	DISPONIBILIDAD		17.62	12.33	73.04	51.22	0.93	80.02	99.59	99.94	63.37	18.49	56.49
	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		82.38	197.67	226.96	48.78	0.00	218.98	200.41	100.06	36.63	81.51	43.51
	RECEPCION PEDIDOS PLANIFICADOS		100.00	200.00	300.00	100.00	0.00	300.00	300.00	200.00	100.00	100.00	100.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		300.00	100.00	0.00	300.00	300.00	200.00	100.00	100.00	100.00	300.00	100.00

NIVEL 2	1.1.3 TUBO												
	NECESIDADES BRUTAS		257,442	641,527	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	DISPONIBILIDAD	359,000	100,558	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	540,969	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	RECEPCION PEDIDOS PLANIFICADOS		0	540,969	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	540,969	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743

NIVEL 2	1.1.4 SOPORTE												
	NECESIDADES BRUTAS		257,442	641,527	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		257,442	641,527	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	RECEPCION PEDIDOS PLANIFICADOS		257,442	641,527	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743
	LANZAMIENTO PEDIDOS PLANIFICADOS		257,442	641,527	747,771	380,703	157,146	690,350	876,344	623,897	426,785	452,767	193,743

NIVEL 2	1.2.1 POLIESTIRENO	0.0036 KG											
	NECESIDADES BRUTAS		901.05	2,245.34	2,617.20	1,332.46	550.01	2,416.23	3,067.20	2,183.64	1,493.75	1,584.68	678.10
	DISPONIBILIDAD		43.95	3.61	41.41	13.96	3.94	17.71	10.51	31.87	23.12	13.44	10.34
	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		901.05	2,201.39	2,613.69	1,291.05	536.05	2,412.29	3,049.49	2,173.13	1,481.88	1,581.56	664.08
	RECEPCION PEDIDOS PLANIFICADOS		945.00	2,205.00	2,655.00	1,305.00	540.00	2,430.00	3,060.00	2,205.00	1,485.00	1,575.00	675.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		2,205.00	2,655.00	1,305.00	540.00	2,430.00	3,060.00	2,205.00	1,485.00	1,575.00	675.00	1,035.00

NIVEL 2	1.3.1 RESINA K	0.00132 KG											
	NECESIDADES BRUTAS		339.82	846.82	987.09	502.53	207.43	911.26	1,156.77	823.54	563.36	597.65	255.74
	DISPONIBILIDAD		20.18	28.36	31.30	23.78	41.34	30.09	43.31	29.78	6.41	36.75	8.01
	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		339.82	826.64	958.70	471.22	193.60	889.92	1,126.69	780.24	533.59	561.25	216.99
	RECEPCION PEDIDOS PLANIFICADOS		360.00	855.00	990.00	495.00	225.00	900.00	1,170.00	810.00	540.00	630.00	225.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		360.00	855.00	990.00	495.00	225.00	900.00	1,170.00	810.00	540.00	630.00	225.00

	1.4.1 POLIETILENO BAJA DENSIDAD	0.0001140 KG										
	NECESIDADES BRUTAS		29.35	73.13	85.25	43.40	17.01	78.70	99.90	71.12	46.05	51.82	22.09
	DISPONIBILIDAD		16.65	32.52	37.27	38.87	20.95	32.25	22.35	41.23	37.59	30.96	8.87
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		29.35	57.48	52.73	5.13	0.00	57.74	67.65	46.77	7.42	14.04	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	90.00	90.00	45.00	0.00	90.00	90.00	90.00	45.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		90.00	90.00	45.00	0.00	90.00	90.00	90.00	45.00	45.00	0.00	90.00

	1.4.2 COLORANTE	0.0000018 KG										
	NECESIDADES BRUTAS		0.46	1.16	1.35	0.69	0.28	1.24	1.58	1.12	0.77	0.81	0.35
	DISPONIBILIDAD		44.54	43.38	42.04	41.35	41.07	39.83	38.25	37.12	36.36	35.54	35.19
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO	0.0006000 KG										
	NECESIDADES BRUTAS		0.00	324.58	448.66	228.42	94.29	414.21	525.81	374.34	256.07	271.66	116.25
	DISPONIBILIDAD		0.00	35.42	36.76	33.33	28.05	19.84	34.03	19.69	33.62	31.96	5.72
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	324.58	413.24	191.67	66.95	395.16	505.97	340.31	236.38	239.04	84.28
	RECEPCION PEDIDOS PLANIFICADOS		0.00	360.00	450.00	225.00	90.00	405.00	540.00	360.00	270.00	270.00	90.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		360.00	450.00	225.00	90.00	405.00	540.00	360.00	270.00	270.00	90.00	360.00

	1.1.3.2 COLORANTE	0.0000170 KG										
	NECESIDADES BRUTAS		0.00	9.20	12.71	6.47	2.67	11.74	14.90	10.61	7.26	7.70	3.29
	DISPONIBILIDAD		0.00	35.80	23.09	16.62	13.95	2.21	32.31	21.71	14.46	6.76	3.46
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	9.20	0.00	0.00	0.00	0.00	12.69	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	45.00

	1.1.4.1 POLIACETAL NATURAL	0.0001700 KG										
	NECESIDADES BRUTAS		43.77	109.08	127.12	64.72	26.71	117.38	148.99	106.06	72.65	76.97	32.94
	DISPONIBILIDAD		1.23	27.18	35.05	15.33	33.62	8.26	37.28	21.22	38.67	6.70	16.76
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		43.77	107.82	99.95	29.67	11.38	83.74	142.72	88.78	51.33	39.30	26.24
	RECEPCION PEDIDOS PLANIFICADOS		45.00	135.00	135.00	45.00	45.00	90.00	180.00	90.00	45.00	45.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		45.00	45.00	90.00	180.00	90.00	90.00	45.00	45.00	90.00	90.00	90.00

	1.1.4.2 COLORANTE	0.0000270										
	NECESIDADES BRUTAS		6.95	17.32	20.19	10.28	4.24	18.64	23.66	16.85	11.52	12.22	5.23
	DISPONIBILIDAD		38.05	20.73	0.54	35.26	31.02	12.38	33.72	16.87	5.35	38.12	32.89
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		6.95	0.00	0.00	9.74	0.00	0.00	11.28	0.00	0.00	6.88	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	45.00	0.00	0.00	45.00	0.00	0.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	45.00	0.00	0.00	45.00	0.00	0.00	45.00	0.00	0.00

	NEGRO 2	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	lo:												
	Ft	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	It	0	0	0	0	0	0	0	0	0	0	0	0
	MPS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	NEGRO 2												
	NECESIDADES BRUTAS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	RECEPCION PEDIDOS PLANIFICADOS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	LANZAMIENTO PEDIDOS PLANIFICADOS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	1.1REPUESTO												
	NECESIDADES BRUTAS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	RECEPCION PEDIDOS PLANIFICADOS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	LANZAMIENTO PEDIDOS PLANIFICADOS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	1.2 BARRIL												
	NECESIDADES BRUTAS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	RECEPCION PEDIDOS PLANIFICADOS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	LANZAMIENTO PEDIDOS PLANIFICADOS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	1.3 TAPA												0
	NECESIDADES BRUTAS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	RECEPCION PEDIDOS PLANIFICADOS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	LANZAMIENTO PEDIDOS PLANIFICADOS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	1.4 BOTON												
	NECESIDADES BRUTAS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	RECEPCION PEDIDOS PLANIFICADOS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	LANZAMIENTO PEDIDOS PLANIFICADOS	546,001	383,499	764,802	889,198	451,589	185,959	815,022	1,032,268	733,276	500,529	529,891	226,283
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS	456	320	637	741	376	155	679	860	611	417	442	189
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	456	320	637	741	376	155	679	860	611	417	442	189
	RECEPCION PEDIDOS PLANIFICADOS	456	320	637	741	376	155	679	860	611	417	442	189
	LANZAMIENTO PEDIDOS PLANIFICADOS	456	320	637	741	376	155	679	860	611	417	442	189

	1.0 CAJILLA											
	NECESIDADES BRUTAS	22,750	15,979	31,957	37,050	18,916	7,748	33,959	43,011	30,553	20,855	22,079	9,428
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	22,750	15,979	31,957	37,050	18,916	7,748	33,959	43,011	30,553	20,855	22,079	9,428
	RECEPCION PEDIDOS PLANIFICADOS	22,750	15,979	31,957	37,050	18,916	7,748	33,959	43,011	30,553	20,855	22,079	9,428
	LANZAMIENTO PEDIDOS PLANIFICADOS	22,750	15,979	31,957	37,050	18,916	7,748	33,959	43,011	30,553	20,855	22,079	9,428

	1.1.1 PUNTO											
	NECESIDADES BRUTAS	646,001	383,469	764,802	889,198	451,589	185,959	815,022	1,032,258	733,276	500,529	529,891	226,283
	DISPONIBILIDAD	2,534	19,025	4,223	15,024	13,436	2,477	12,465	6,196	21,920	21,391	16,500	15,217
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	522,470	380,975	745,777	884,976	436,564	172,523	812,545	1,019,604	728,080	478,609	508,500	209,783
	RECEPCION PEDIDOS PLANIFICADOS	525,000	400,000	750,000	900,000	450,000	175,000	825,000	1,025,000	750,000	500,000	525,000	225,000
	LANZAMIENTO PEDIDOS PLANIFICADOS	750,000	900,000	450,000	175,000	825,000	1,025,000	750,000	500,000	525,000	225,000	0	0

	1.1.2 TINTA											
	NECESIDADES BRUTAS	174.72	122.72	244.74	284.64	144.51	59.51	260.81	330.32	234.65	160.17	169.56	72.41
	DISPONIBILIDAD	81.77	59.05	14.31	29.77	85.26	26.75	64.95	34.82	99.97	39.81	70.24	97.83
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	118.23	40.95	185.69	270.23	114.74	0.00	235.05	265.36	200.03	60.19	129.76	2.17
	RECEPCION PEDIDOS PLANIFICADOS	200.00	100.00	200.00	300.00	200.00	0.00	300.00	300.00	300.00	100.00	200.00	100.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	200.00	300.00	200.00	0.00	300.00	300.00	300.00	100.00	200.00	100.00	0.00	0.00

	1.1.3 TUBO											
	NECESIDADES BRUTAS	646,001	383,469	764,802	889,198	451,589	185,959	815,022	1,032,258	733,276	500,529	529,891	226,283
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	646,001	383,469	764,802	889,198	451,589	185,959	815,022	1,032,258	733,276	500,529	529,891	226,283
	RECEPCION PEDIDOS PLANIFICADOS	646,001	383,469	764,802	889,198	451,589	185,959	815,022	1,032,258	733,276	500,529	529,891	226,283
	LANZAMIENTO PEDIDOS PLANIFICADOS	646,001	383,469	764,802	889,198	451,589	185,959	815,022	1,032,258	733,276	500,529	529,891	226,283

	1.1.4 BOPORTE											
	NECESIDADES BRUTAS	646,001	383,469	764,802	889,198	451,589	185,959	815,022	1,032,258	733,276	500,529	529,891	226,283
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	646,001	383,469	764,802	889,198	451,589	185,959	815,022	1,032,258	733,276	500,529	529,891	226,283
	RECEPCION PEDIDOS PLANIFICADOS	646,001	383,469	764,802	889,198	451,589	185,959	815,022	1,032,258	733,276	500,529	529,891	226,283
	LANZAMIENTO PEDIDOS PLANIFICADOS	646,001	383,469	764,802	889,198	451,589	185,959	815,022	1,032,258	733,276	500,529	529,891	226,283

	1.2.1 POLIESTIRENO											
	NECESIDADES BRUTAS	1,911.01	1,342.25	2,676.81	3,112.19	1,580.56	650.86	2,852.58	3,612.90	2,566.47	1,751.85	1,854.62	791.99
	DISPONIBILIDAD	34.33	42.09	20.28	13.09	7.62	31.67	14.09	1.19	44.72	2.87	38.25	11.26
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	1,900.67	1,307.91	2,634.72	3,091.91	1,567.48	643.33	2,820.91	3,590.81	2,565.28	1,707.13	1,831.75	753.74
	RECEPCION PEDIDOS PLANIFICADOS	1,935.00	1,350.00	2,655.00	3,105.00	1,575.00	675.00	2,835.00	3,600.00	2,610.00	1,710.00	1,890.00	765.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	1,350.00	2,655.00	3,105.00	1,575.00	675.00	2,835.00	3,600.00	2,610.00	1,710.00	1,890.00	765.00	0.00

	1.3.1 RESINA K											
	NECESIDADES BRUTAS	720.72	506.22	1,009.54	1,173.74	596.10	245.47	1,076.63	1,362.68	967.92	660.70	699.48	298.69
	DISPONIBILIDAD	7.28	41.07	21.53	17.79	6.70	31.23	35.40	22.82	44.69	14.20	34.74	6.05
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	712.71	498.93	988.47	1,162.21	578.30	238.77	1,044.60	1,327.19	945.11	646.80	685.28	293.95
	RECEPCION PEDIDOS PLANIFICADOS	720.00	540.00	990.00	1,170.00	585.00	270.00	1,080.00	1,350.00	990.00	630.00	720.00	270.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	720.00	540.00	990.00	1,170.00	585.00	270.00	1,080.00	1,350.00	990.00	630.00	720.00	270.00

NIVEL 2	1.4.1 POLIETILENO BAJA DENSIDAD												
	NECESIDADES BRUTAS	62.24	43.72	87.19	101.37	51.49	21.20	92.91	117.68	93.59	67.06	69.41	25.80
	DISPONIBILIDAD	36.63	37.91	40.72	29.35	22.87	1.87	43.78	16.08	22.49	10.43	40.02	14.23
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	63.37	7.09	46.28	60.65	22.13	0.00	91.24	73.92	67.51	34.57	49.98	0.00
	RECEPCION PEDIDOS PLANIFICADOS	90.00	45.00	90.00	90.00	45.00	0.00	135.00	90.00	90.00	45.00	90.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	45.00	90.00	90.00	45.00	0.00	135.00	90.00	90.00	45.00	90.00	0.00	0.00

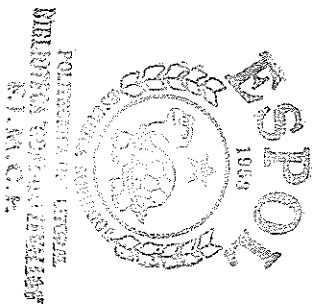
NIVEL 2	1.4.2 COLORANTE												
	NECESIDADES BRUTAS	0.00	0.69	1.38	1.60	0.81	0.33	1.47	1.86	1.32	0.90	0.95	0.41
	DISPONIBILIDAD	34.21	33.52	32.14	30.54	29.73	28.39	27.93	26.07	24.76	23.85	22.90	22.49
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NIVEL 3	1.1.3.1 POLIETILENO												
	NECESIDADES BRUTAS	327.60	230.10	466.68	533.52	270.95	111.59	488.01	618.35	439.97	308.32	317.93	135.77
	DISPONIBILIDAD	38.11	33.02	24.13	30.61	29.66	5.09	14.07	24.72	34.78	4.43	1.50	0.73
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	321.89	191.98	425.87	509.39	240.34	81.91	480.93	605.28	415.28	265.67	313.50	134.27
	RECEPCION PEDIDOS PLANIFICADOS	360.00	225.00	450.00	540.00	270.00	90.00	495.00	630.00	450.00	270.00	315.00	135.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	225.00	450.00	540.00	270.00	90.00	495.00	630.00	450.00	270.00	315.00	135.00	0.00

NIVEL 3	1.1.3.2 COLORANTE												
	NECESIDADES BRUTAS	0.26	0.52	13.00	18.12	7.66	3.16	13.85	17.55	12.47	8.61	9.01	3.85
	DISPONIBILIDAD	39.18	32.86	19.86	4.84	41.87	38.70	24.85	7.30	39.83	31.33	22.32	18.47
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	6.82	0.00	0.00	0.00	3.13	0.00	0.00	0.00	5.17	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	45.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00

NIVEL 3	1.1.4.1 POLIACETAL NATURAL												
	NECESIDADES BRUTAS	92.82	85.19	139.02	151.16	76.77	31.61	138.55	175.48	124.86	85.09	90.08	38.47
	DISPONIBILIDAD	18.94	40.74	0.73	29.86	42.79	11.16	7.63	12.14	22.49	27.40	27.32	33.85
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	74.08	49.26	99.27	150.44	47.21	0.00	127.37	167.88	112.51	62.60	62.68	11.15
	RECEPCION PEDIDOS PLANIFICADOS	90.00	90.00	90.00	180.00	90.00	0.00	135.00	180.00	135.00	90.00	90.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	90.00	90.00	180.00	90.00	0.00	135.00	180.00	135.00	90.00	90.00	45.00	0.00

NIVEL 3	1.1.4.2 COLORANTE												
	NECESIDADES BRUTAS	14.74	10.36	20.65	24.01	12.19	5.02	22.01	27.87	19.80	13.51	14.31	6.11
	DISPONIBILIDAD	18.15	7.79	32.15	8.14	40.94	35.92	13.92	31.05	11.25	42.73	28.43	22.32
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	12.85	0.00	4.06	0.00	0.00	13.95	0.00	2.27	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	45.00	0.00	45.00	0.00	0.00	45.00	0.00	45.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	45.00	0.00	45.00	0.00	0.00	45.00	0.00	45.00	0.00	0.00	0.00



APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

	ROJO2	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
	lo:	36,226											
	Pt		306,115	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	It		0	0	0	0	0	0	0	0	0	0	0
	MPS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	ROJO2												
	NECESIDADES BRUTAS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	RECEPCION PEDIDOS PLANIFICADOS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	LANZAMIENTO PEDIDOS PLANIFICADOS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	1.1REPUESTO												
	NECESIDADES BRUTAS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	RECEPCION PEDIDOS PLANIFICADOS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	LANZAMIENTO PEDIDOS PLANIFICADOS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	1.2 BARRIL												
	NECESIDADES BRUTAS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	RECEPCION PEDIDOS PLANIFICADOS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	LANZAMIENTO PEDIDOS PLANIFICADOS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	1.3 TAPA												
	NECESIDADES BRUTAS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	RECEPCION PEDIDOS PLANIFICADOS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	LANZAMIENTO PEDIDOS PLANIFICADOS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	1.4 BOTON												
	NECESIDADES BRUTAS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	RECEPCION PEDIDOS PLANIFICADOS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	LANZAMIENTO PEDIDOS PLANIFICADOS		269,887	724,978	726,612	442,097	455,985	710,432	978,605	605,633	194,437	458,541	222,321
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS		225	604	606	368	380	592	732	505	162	382	185
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		225	604	606	368	380	592	732	505	162	382	185
	RECEPCION PEDIDOS PLANIFICADOS		225	604	606	368	380	592	732	505	162	382	185
	LANZAMIENTO PEDIDOS PLANIFICADOS		225	604	606	368	380	592	732	505	162	382	185

	1.0 CAJILLA												
	NECESIDADES BRUTAS		11,246	30,207	30,276	18,421	18,999	29,601	36,617	25,235	9,102	19,106	9,263
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		11,246	30,207	30,276	18,421	18,999	29,601	36,617	25,235	9,102	19,106	9,263
	RECEPCION PEDIDOS PLANIFICADOS		11,245	30,207	30,275	18,421	18,999	29,601	36,617	25,235	9,102	19,106	9,263
	LANZAMIENTO PEDIDOS PLANIFICADOS		11,245	30,207	30,275	18,421	18,999	29,601	36,617	25,235	9,102	19,106	9,263
	1.1.1 PUNTO												
	NECESIDADES BRUTAS		269,687	724,978	726,612	442,097	455,985	710,432	878,805	605,633	194,437	458,541	222,321
	DISPONIBILIDAD		5,113	5,135	3,523	11,428	5,441	20,009	16,204	10,571	15,134	7,593	10,272
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		269,687	719,865	721,477	438,674	444,559	704,991	859,796	599,429	183,666	442,407	214,728
	RECEPCION PEDIDOS PLANIFICADOS		275,000	725,000	725,000	450,000	450,000	725,000	875,000	600,000	200,000	450,000	225,000
	LANZAMIENTO PEDIDOS PLANIFICADOS		725,000	450,000	450,000	725,000	875,000	600,000	200,000	450,000	225,000	550,000	375,000
	1.1.2 TINTA	*0.00032 K											
	NECESIDADES BRUTAS		86.36	231.99	232.52	141.47	145.92	227.34	281.22	193.80	62.22	146.73	71.14
	DISPONIBILIDAD		13.64	81.64	49.13	7.66	61.74	34.40	53.19	59.39	97.16	60.43	79.29
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		86.36	218.36	150.87	92.34	138.26	165.60	246.81	140.62	2.84	49.57	20.71
	RECEPCION PEDIDOS PLANIFICADOS		100.00	300.00	200.00	100.00	200.00	200.00	300.00	100.00	100.00	100.00	100.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		200.00	100.00	200.00	200.00	300.00	200.00	100.00	100.00	100.00	100.00	200.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS		269,687	724,978	726,612	442,097	455,985	710,432	878,805	605,633	194,437	458,541	222,321
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		269,687	724,978	726,612	442,097	455,985	710,432	878,805	605,633	194,437	458,541	222,321
	RECEPCION PEDIDOS PLANIFICADOS		269,687	724,978	726,612	442,097	455,985	710,432	878,805	605,633	194,437	458,541	222,321
	LANZAMIENTO PEDIDOS PLANIFICADOS		269,687	724,978	726,612	442,097	455,985	710,432	878,805	605,633	194,437	458,541	222,321
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS		269,687	724,978	726,612	442,097	455,985	710,432	878,805	605,633	194,437	458,541	222,321
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		269,687	724,978	726,612	442,097	455,985	710,432	878,805	605,633	194,437	458,541	222,321
	RECEPCION PEDIDOS PLANIFICADOS		269,687	724,978	726,612	442,097	455,985	710,432	878,805	605,633	194,437	458,541	222,321
	LANZAMIENTO PEDIDOS PLANIFICADOS		269,687	724,978	726,612	442,097	455,985	710,432	878,805	605,633	194,437	458,541	222,321
	1.2.1 POLIESTIRENO	0.0035 KG											
	NECESIDADES BRUTAS		944.60	2,537.42	2,543.14	1,547.34	1,595.95	2,486.51	3,075.82	2,119.72	680.53	1,604.89	778.12
	DISPONIBILIDAD		0.40	27.97	4.83	32.49	11.54	0.03	29.21	24.50	18.97	34.08	20.95
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		944.60	2,537.03	2,515.17	1,542.51	1,583.46	2,474.97	3,075.79	2,090.50	656.03	1,589.02	744.05
	RECEPCION PEDIDOS PLANIFICADOS		945.00	2,565.00	2,520.00	1,575.00	1,575.00	2,475.00	3,105.00	2,115.00	675.00	1,620.00	765.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		2,565.00	2,520.00	1,575.00	1,575.00	2,475.00	3,105.00	2,115.00	675.00	1,620.00	765.00	1,035.00
	1.3.1 RESINA K	0.00132 KG											
	NECESIDADES BRUTAS		356.26	956.97	959.13	583.57	601.90	937.77	1,160.02	799.44	256.66	605.27	293.46
	DISPONIBILIDAD		3.75	30.78	22.65	24.08	7.18	14.41	24.39	34.95	3.30	28.02	4.56
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		356.25	953.22	922.35	560.92	577.82	930.58	1,145.61	775.05	221.76	601.88	285.44
	RECEPCION PEDIDOS PLANIFICADOS		360.00	990.00	945.00	585.00	585.00	945.00	1,170.00	810.00	225.00	630.00	270.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		360.00	990.00	945.00	585.00	585.00	945.00	1,170.00	810.00	225.00	630.00	270.00

	1.4.1 POLIETILENO BAJA DENSIDAD	0.0001140 KG										
	NECESIDADES BRUTAS		30.77	62.65	62.63	50.40	51.98	80.09	100.19	69.04	22.17	52.27	25.34
	DISPONIBILIDAD		14.23	21.89	28.75	23.35	16.37	28.38	15.20	36.16	13.89	8.72	26.37
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		30.77	68.41	61.25	21.65	28.63	64.62	74.80	53.84	0.00	30.28	18.63
	RECEPCION PEDIDOS PLANIFICADOS		45.00	90.00	90.00	45.00	45.00	90.00	90.00	90.00	0.00	45.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		90.00	90.00	45.00	45.00	90.00	90.00	90.00	0.00	45.00	45.00	45.00

	1.4.2 COLORANTE	0.0000018 KG										
	NECESIDADES BRUTAS		0.49	1.00	1.01	0.80	0.82	1.28	1.58	1.09	0.35	0.83	0.40
	DISPONIBILIDAD		44.51	43.21	41.90	41.11	40.28	38.81	37.42	36.33	35.99	35.16	34.76
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO	0.0006000 KG										
	NECESIDADES BRUTAS		161.93	434.99	435.97	265.26	273.59	426.26	527.26	363.38	116.66	275.12	133.39
	DISPONIBILIDAD		18.07	33.08	2.11	6.86	3.26	27.01	39.72	36.34	9.68	4.56	6.16
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		161.93	416.92	402.89	263.14	266.74	422.99	500.28	323.66	80.32	265.44	126.84
	RECEPCION PEDIDOS PLANIFICADOS		180.00	450.00	405.00	270.00	270.00	450.00	540.00	360.00	90.00	270.00	135.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		450.00	405.00	270.00	270.00	450.00	540.00	360.00	90.00	270.00	135.00	360.00

	1.1.3.2 COLORANTE	0.0000170 KG										
	NECESIDADES BRUTAS		4.59	12.32	12.35	7.52	7.75	12.08	14.94	10.30	3.31	7.80	3.78
	DISPONIBILIDAD		40.41	28.09	15.73	8.22	0.47	33.39	18.45	8.15	4.85	42.05	38.27
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		4.59	0.00	0.00	0.00	0.00	11.61	0.00	0.00	0.00	2.95	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00

	1.1.4.1 POLIACETAL NATURAL	0.0001700 KG										
	NECESIDADES BRUTAS		46.86	123.29	123.52	76.16	77.52	120.77	149.40	102.96	33.05	77.95	37.79
	DISPONIBILIDAD		44.12	10.87	22.35	37.19	4.67	18.90	4.50	36.55	33.05	0.10	7.31
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		46.86	79.13	112.65	52.81	40.33	116.10	130.50	98.45	0.00	44.90	37.69
	RECEPCION PEDIDOS PLANIFICADOS		90.00	90.00	135.00	90.00	45.00	135.00	135.00	135.00	0.00	45.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		90.00	45.00	135.00	135.00	135.00	0.00	45.00	45.00	90.00	90.00	90.00

	1.1.4.2 COLORANTE	0.0000270 KG										
	NECESIDADES BRUTAS		7.29	19.57	19.62	11.94	12.31	19.18	23.73	16.35	5.25	12.38	6.00
	DISPONIBILIDAD		37.71	18.14	43.52	31.58	19.27	0.09	21.36	5.01	44.76	32.38	26.38
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		7.29	0.00	1.48	0.00	0.00	0.00	23.64	0.00	0.24	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	45.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	0.00	45.00	0.00	45.00	0.00	0.00	0.00

	1.4.1 POLIETILENO BAJA DENSIDAD	0.0001140 KG										
	NECESIDADES BRUTAS		30.77	92.65	92.63	50.40	81.98	80.89	100.18	69.04	22.47	52.27	25.34
	DISPONIBILIDAD		14.23	21.59	28.75	23.35	16.37	25.36	15.20	36.16	13.69	6.72	26.37
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		30.77	69.41	61.25	21.65	28.63	64.62	74.80	53.84	0.00	36.28	18.63
	RECEPCION PEDIDOS PLANIFICADOS		45.00	90.00	90.00	45.00	45.00	90.00	90.00	90.00	0.00	45.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		90.00	90.00	45.00	45.00	90.00	90.00	90.00	0.00	45.00	45.00	45.00

	1.4.2 COLORANTE	0.0000018 KG										
	NECESIDADES BRUTAS		0.49	1.30	1.31	0.80	0.82	1.28	1.58	1.09	0.35	0.83	0.40
	DISPONIBILIDAD		44.51	43.21	41.90	41.11	40.28	39.01	37.42	36.33	35.98	35.16	34.76
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO	0.0008000 KG										
	NECESIDADES BRUTAS		161.93	434.69	435.97	266.26	273.69	426.26	527.28	363.38	116.66	275.12	133.39
	DISPONIBILIDAD		18.07	33.08	2.11	0.88	3.26	27.01	39.72	36.34	9.68	4.56	6.16
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		161.93	416.92	402.89	263.14	266.74	422.99	500.28	323.66	80.32	265.44	126.84
	RECEPCION PEDIDOS PLANIFICADOS		180.00	450.00	405.00	270.00	270.00	450.00	540.00	360.00	90.00	270.00	135.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		450.00	405.00	270.00	270.00	450.00	540.00	360.00	90.00	270.00	135.00	360.00

	1.1.3.2 COLORANTE	0.0000170 KG										
	NECESIDADES BRUTAS		4.59	12.32	12.35	7.52	7.76	12.08	14.94	10.30	3.31	7.80	3.78
	DISPONIBILIDAD		40.41	28.09	15.73	8.22	0.47	33.39	18.46	8.16	4.85	42.05	38.27
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		4.59	0.00	0.00	0.00	0.00	11.61	0.00	0.00	0.00	2.95	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00

	1.1.4.1 POLIACETAL NATURAL	0.0001700 KG										
	NECESIDADES BRUTAS		45.88	123.25	123.52	76.16	77.52	120.77	149.40	102.98	33.05	77.85	37.79
	DISPONIBILIDAD		44.12	10.87	22.35	37.19	4.67	18.90	4.50	36.55	33.05	0.10	7.31
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		45.88	79.13	112.65	62.81	40.33	116.10	130.50	98.45	0.00	44.80	37.69
	RECEPCION PEDIDOS PLANIFICADOS		90.00	90.00	135.00	90.00	45.00	135.00	135.00	135.00	0.00	45.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		90.00	45.00	135.00	135.00	135.00	0.00	45.00	45.00	90.00	90.00	90.00

	1.1.4.2 COLORANTE	0.0000270 KG										
	NECESIDADES BRUTAS		7.29	19.57	19.62	11.94	12.31	19.18	23.73	16.35	5.25	12.38	6.00
	DISPONIBILIDAD		37.71	18.14	43.52	31.58	19.27	0.09	21.36	5.01	44.76	32.38	26.38
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		7.29	0.00	1.48	0.00	0.00	0.00	23.64	0.00	0.24	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	45.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	0.00	45.00	0.00	45.00	0.00	0.00	0.00

	ROJO2	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	lo:												
	Ft	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	It	0	0	0	0	0	0	0	0	0	0	0	0
	MPS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655

	ROJO2												
	NECESIDADES BRUTAS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	RECEPCION PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	LANZAMIENTO PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655

	1.1REPUESTO												
	NECESIDADES BRUTAS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	RECEPCION PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	LANZAMIENTO PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655

	1.2 BARRIL												
	NECESIDADES BRUTAS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	RECEPCION PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	LANZAMIENTO PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655

	1.3 TAPA												0
	NECESIDADES BRUTAS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	RECEPCION PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	LANZAMIENTO PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655

	1.4 BOTON												
	NECESIDADES BRUTAS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	RECEPCION PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655
	LANZAMIENTO PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	638,711	1,035,135	711,795	228,029	536,637	259,655

	1.5 CAJA MASTER												
	NECESIDADES BRUTAS	459	305	720	720	437	450	699	863	593	190	447	216
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	459	305	720	720	437	450	699	863	593	190	447	216
	RECEPCION PEDIDOS PLANIFICADOS	459	305	720	720	437	450	699	863	593	190	447	216
	LANZAMIENTO PEDIDOS PLANIFICADOS	459	305	720	720	437	450	699	863	593	190	447	216

	1.0 CAJILLA												
	NECESIDADES BRUTAS	22,959	15,245	36,011	36,001	21,850	22,462	34,946	43,131	29,659	9,501	22,360	10,819
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	22,959	15,245	36,011	36,001	21,850	22,462	34,946	43,131	29,659	9,501	22,360	10,819
	RECEPCION PEDIDOS PLANIFICADOS	22,959	15,245	36,011	36,001	21,850	22,462	34,946	43,131	29,659	9,501	22,360	10,819
	LANZAMIENTO PEDIDOS PLANIFICADOS	22,959	15,245	36,011	36,001	21,850	22,462	34,946	43,131	29,659	9,501	22,360	10,819

	1.1.1 PUNTO												
	NECESIDADES BRUTAS	551,010	365,886	864,268	864,015	524,401	539,579	838,711	1,035,135	711,795	228,029	536,637	259,655
	DISPONIBILIDAD	9,265	16,377	4,109	15,054	15,693	1,114	12,403	2,269	15,474	12,445	608	10,193
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	540,737	356,623	845,891	859,908	509,307	523,686	837,697	1,022,731	709,526	212,685	524,192	259,647
	RECEPCION PEDIDOS PLANIFICADOS	550,000	375,000	850,000	875,000	525,000	525,000	850,000	1,025,000	725,000	225,000	525,000	275,000
	LANZAMIENTO PEDIDOS PLANIFICADOS	550,000	375,000	525,000	525,000	850,000	1,025,000	725,000	225,000	525,000	275,000	0	0

	1.1.2 TRITA												
	NECESIDADES BRUTAS	176.32	117.08	276.57	276.49	167.81	172.67	268.39	331.24	227.77	72.97	171.72	83.09
	DISPONIBILIDAD	2.96	85.88	0.31	32.83	65.02	92.36	23.97	92.73	84.05	91.08	20.26	37.17
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	97.04	114.12	199.69	267.17	134.98	107.64	176.03	307.27	135.05	8.92	79.74	62.83
	RECEPCION PEDIDOS PLANIFICADOS	100.00	200.00	200.00	300.00	200.00	200.00	200.00	400.00	200.00	100.00	100.00	100.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	200.00	300.00	200.00	200.00	200.00	400.00	200.00	100.00	100.00	100.00	0.00	0.00

	1.1.3 TUBO												
	NECESIDADES BRUTAS	551,010	365,886	864,268	864,015	524,401	539,579	838,711	1,035,135	711,795	228,029	536,637	259,655
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	551,010	365,886	864,268	864,015	524,401	539,579	838,711	1,035,135	711,795	228,029	536,637	259,655
	RECEPCION PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	838,711	1,035,135	711,795	228,029	536,637	259,655
	LANZAMIENTO PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	838,711	1,035,135	711,795	228,029	536,637	259,655

	1.1.4 SOPORTE												
	NECESIDADES BRUTAS	551,010	365,886	864,268	864,015	524,401	539,579	838,711	1,035,135	711,795	228,029	536,637	259,655
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	551,010	365,886	864,268	864,015	524,401	539,579	838,711	1,035,135	711,795	228,029	536,637	259,655
	RECEPCION PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	838,711	1,035,135	711,795	228,029	536,637	259,655
	LANZAMIENTO PEDIDOS PLANIFICADOS	551,010	365,886	864,268	864,015	524,401	539,579	838,711	1,035,135	711,795	228,029	536,637	259,655

	1.2.1 POLIESTIRENO												
	NECESIDADES BRUTAS	1,928.53	1,280.60	3,024.94	3,024.05	1,835.40	1,888.52	2,935.49	3,622.97	2,491.28	798.10	1,878.23	908.79
	DISPONIBILIDAD	27.42	8.82	41.88	32.83	42.43	43.90	33.41	10.44	39.16	8.09	17.83	9.03
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	1,907.58	1,253.18	3,018.12	2,992.17	1,803.57	1,846.10	2,991.59	3,589.58	2,480.84	758.94	1,872.17	899.97
	RECEPCION PEDIDOS PLANIFICADOS	1,935.00	1,260.00	3,060.00	3,015.00	1,845.00	1,890.00	2,925.00	3,600.00	2,520.00	765.00	1,890.00	900.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	1,260.00	3,060.00	3,015.00	1,845.00	1,890.00	2,925.00	3,600.00	2,520.00	765.00	1,890.00	900.00	0.00

	1.3.1 RESINA K												
	NECESIDADES BRUTAS	727.33	462.97	1,140.63	1,140.50	692.21	712.24	1,107.10	1,366.38	939.57	301.00	709.36	342.76
	DISPONIBILIDAD	42.23	9.26	39.42	22.82	5.71	13.47	31.37	14.99	20.43	34.43	1.07	16.32
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	722.77	440.74	1,131.58	1,102.68	669.28	706.53	1,093.63	1,336.01	924.57	280.57	673.93	341.68
	RECEPCION PEDIDOS PLANIFICADOS	765.00	450.00	1,170.00	1,125.00	675.00	720.00	1,125.00	1,350.00	945.00	315.00	675.00	360.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	765.00	450.00	1,170.00	1,125.00	675.00	720.00	1,125.00	1,350.00	945.00	315.00	675.00	360.00

	1.4.1 POLIETILENO BAJA DENSIDAD											
	NECESIDADES BRUTAS	62.62	41.71	98.53	98.50	59.76	61.61	95.61	118.01	81.14	26.00	61.16	29.60
	DISPONIBILIDAD	8.56	11.84	3.32	39.82	25.04	8.53	2.91	19.91	28.76	2.77	31.59	1.99
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	38.44	33.16	86.68	95.18	19.96	36.47	87.09	116.09	61.24	0.00	56.41	0.00
	RECEPCION PEDIDOS PLANIFICADOS	45.00	45.00	90.00	135.00	45.00	45.00	90.00	135.00	90.00	0.00	90.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	45.00	90.00	135.00	45.00	45.00	90.00	135.00	90.00	0.00	90.00	0.00	0.00

	1.4.2 COLORANTE											
	NECESIDADES BRUTAS	0.69	0.66	1.66	1.56	0.94	0.97	1.51	1.86	1.28	0.41	0.97	0.47
	DISPONIBILIDAD	33.77	33.11	31.55	30.00	28.05	28.08	26.57	24.71	23.43	23.02	22.05	21.58
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO											
	NECESIDADES BRUTAS	330.61	218.53	518.56	518.41	314.64	323.76	503.23	621.08	427.08	136.82	321.98	155.79
	DISPONIBILIDAD	35.56	41.03	17.47	39.06	39.42	30.67	22.44	31.36	8.28	7.47	6.48	24.69
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	324.44	193.97	477.53	500.64	276.58	284.33	472.56	589.64	395.72	127.53	314.52	155.31
	RECEPCION PEDIDOS PLANIFICADOS	360.00	225.00	495.00	540.00	315.00	315.00	495.00	630.00	405.00	135.00	315.00	180.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	225.00	495.00	540.00	315.00	315.00	495.00	630.00	405.00	135.00	315.00	180.00	0.00

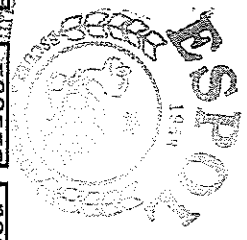
	1.1.3.2 COLORANTE											
	NECESIDADES BRUTAS	9.37	6.22	14.69	14.69	8.91	9.17	14.26	17.60	12.10	3.88	9.12	4.41
	DISPONIBILIDAD	28.91	22.69	7.98	36.31	29.39	20.22	5.96	33.36	21.26	17.39	8.26	3.85
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.49	0.00	0.00	0.00	11.64	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00

	1.1.4.1 POLIACETAL NATURAL											
	NECESIDADES BRUTAS	93.67	62.20	146.93	146.88	89.16	91.73	142.59	176.07	121.01	39.76	91.23	44.14
	DISPONIBILIDAD	2.84	28.44	13.51	42.63	38.46	30.76	18.17	12.20	17.19	13.43	1.20	35.06
NIVEL 3	RECEPCIONES PROGRAMADAS	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00
	NECESIDADES NETAS	67.36	61.65	121.49	137.37	51.52	59.25	118.83	167.80	117.81	31.57	88.80	64.84
	RECEPCION PEDIDOS PLANIFICADOS	90.00	90.00	135.00	180.00	90.00	90.00	135.00	180.00	135.00	45.00	90.00	90.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	90.00	135.00	180.00	90.00	90.00	135.00	180.00	135.00	45.00	90.00	90.00	0.00

	1.1.4.2 COLORANTE											
	NECESIDADES BRUTAS	14.88	9.89	23.34	23.33	14.16	14.57	22.65	27.95	19.22	6.16	14.49	7.01
	DISPONIBILIDAD	11.50	1.62	23.29	44.96	30.80	16.23	38.58	10.64	38.42	30.25	15.77	8.76
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	21.71	0.04	0.00	0.00	6.42	0.00	6.58	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	45.00	45.00	0.00	0.00	45.00	0.00	45.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	45.00	45.00	0.00	0.00	45.00	0.00	45.00	0.00	0.00	0.00	0.00

APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

	AZUL EXP2	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
	Io:	107,535											
	Ft		0	14,472	0	247,483	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	It		107,535	93,063	93,063		0	0	0	0	0	0	0
	MPS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	AZUL EXP2												
	NECESIDADES BRUTAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	1.1REPUESTO												
	NECESIDADES BRUTAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	1.2 BARRIL												
	NECESIDADES BRUTAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	1.3 TAPA												
	NECESIDADES BRUTAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	1.4 BOTON												
	NECESIDADES BRUTAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS		0	0	0	129	38	81	17	73	401	54	85
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	129	38	81	17	73	401	54	85
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	129	38	81	17	73	401	54	85
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	129	38	81	17	73	401	54	85



	1.0 CAJILLA											
	NECESIDADES BRUTAS		0	0	0	6,434	1,699	4,046	834	3,630	20,063	2,699	4,251
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	6,434	1,699	4,046	834	3,630	20,063	2,699	4,251
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	6,434	1,699	4,046	834	3,630	20,063	2,699	4,251
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	6,434	1,699	4,046	834	3,630	20,063	2,699	4,251
	1.1.1 PUNTO												
	NECESIDADES BRUTAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	DISPONIBILIDAD		0	0	0	20,580	24,994	2,894	7,887	20,788	14,256	24,487	22,456
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	154,420	25,006	72,106	17,113	79,332	460,744	50,513	77,544
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	175,000	50,000	75,000	25,000	100,000	475,000	75,000	100,000
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	175,000	50,000	75,000	25,000	100,000	475,000	75,000	100,000	0	0
	1.1.2 TINTA	*0.00032 lt											
	NECESIDADES BRUTAS		0.00	0.00	0.00	49.41	14.59	31.07	6.40	27.88	154.08	20.73	32.65
	DISPONIBILIDAD		0.00	0.00	0.00	50.59	36.00	4.93	98.52	70.65	16.56	95.84	63.19
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	49.41	0.00	0.00	1.48	0.00	83.44	4.16	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	100.00	0.00	0.00	100.00	0.00	100.00	100.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	100.00	0.00	0.00	100.00	0.00	100.00	100.00	0.00	0.00	0.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	154,420	45,586	97,100	20,007	87,119	481,512	64,769	102,031
	1.2.1 POLIESTIRENO	0.0035 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	540.47	159.55	339.85	70.02	304.92	1,685.29	226.69	357.11
	DISPONIBILIDAD		0.00	0.00	0.00	44.53	19.95	40.13	15.10	25.19	4.50	3.20	6.09
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	540.47	115.02	319.87	29.90	289.81	1,680.10	221.80	353.91
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	585.00	135.00	360.00	45.00	315.00	1,665.00	225.00	360.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	585.00	135.00	360.00	45.00	315.00	1,665.00	225.00	360.00	0.00
	1.3.1 RESINA K	0.00132 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	203.83	60.17	128.17	26.41	115.00	635.60	85.50	134.66
	DISPONIBILIDAD		0.00	0.00	0.00	21.17	5.98	12.82	31.41	6.41	0.82	5.32	5.64
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	203.83	39.01	122.18	13.59	83.59	629.16	84.68	129.36
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	225.00	45.00	135.00	45.00	90.00	630.00	90.00	135.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	225.00	45.00	135.00	45.00	90.00	630.00	90.00	135.00

	1.4.1 POLIETILENO BAJA DENSIDAD	0.0001140 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	17.60	5.20	11.07	2.29	9.93	54.89	7.33	11.63
	DISPONIBILIDAD		0.00	0.00	0.00	27.40	22.20	11.13	8.85	43.92	34.03	26.64	15.01
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	17.60	0.00	0.00	0.00	1.08	10.97	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	45.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	45.00	0.00	0.00	0.00	45.00	45.00	0.00	0.00	0.00
	1.4.2 COLORANTE	0.0000018 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.28	0.08	0.17	0.04	0.16	0.87	0.12	0.18
	DISPONIBILIDAD		0.00	0.00	0.00	44.72	44.64	44.47	44.43	44.27	43.41	43.29	43.11
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.1.3.1 POLIETILENO	0.0006000 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	92.65	27.35	58.26	12.00	52.27	288.91	38.66	61.22
	DISPONIBILIDAD		0.00	0.00	0.00	42.35	15.00	1.74	34.73	27.46	8.55	14.69	43.47
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	92.65	0.00	43.26	10.27	17.54	281.45	30.31	46.53
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	135.00	0.00	45.00	45.00	45.00	270.00	45.00	90.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	135.00	0.00	45.00	45.00	45.00	270.00	45.00	90.00	0.00
	1.1.3.2 COLORANTE	0.0000170 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	2.63	0.77	1.65	0.34	1.48	8.19	1.10	1.73
	DISPONIBILIDAD		0.00	0.00	0.00	42.37	41.60	39.95	39.61	38.13	29.94	28.84	27.11
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	2.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.1.4.1 POLIACETAL NATURAL	0.0001700 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	26.25	7.75	16.51	3.40	14.81	81.86	11.01	17.35
	DISPONIBILIDAD		0.00	0.00	0.00	18.75	11.00	39.49	36.09	21.28	29.42	18.41	1.07
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	26.25	0.00	5.51	0.00	0.00	60.58	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	45.00	0.00	45.00	0.00	0.00	90.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		45.00	0.00	45.00	0.00	0.00	90.00	0.00	0.00	0.00	0.00	45.00
	1.1.4.2 COLORANTE	0.0000270											
	NECESIDADES BRUTAS		0.00	0.00	0.00	4.17	1.23	2.62	0.54	2.35	13.00	1.75	2.75
	DISPONIBILIDAD		0.00	0.00	0.00	40.83	39.60	36.98	36.44	34.09	21.08	19.34	16.58
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	4.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	AZUL EXP2	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	Io:												
	Ft	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	It	0	0	0	0	0	0	0	0	0	0	0	0
	MPS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	AZUL EXP2												
	NECESIDADES BRUTAS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	RECEPCION PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	1.1REPUESTO												
	NECESIDADES BRUTAS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	RECEPCION PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	1.2 BARRIL												
	NECESIDADES BRUTAS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	RECEPCION PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	1.3 TAPA												0
	NECESIDADES BRUTAS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	RECEPCION PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	1.4 BOTON												
	NECESIDADES BRUTAS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	RECEPCION PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,601	23,599	102,532	565,462	75,900	119,316
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS	0	0	14	0	245	45	96	20	85	471	63	99
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	14	0	245	45	96	20	85	471	63	99
	RECEPCION PEDIDOS PLANIFICADOS	0	0	14	0	245	45	96	20	85	471	63	99
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	14	0	245	45	96	20	85	471	63	99

POLITECNICA DEL LITORAL
BIBLIOTECA "GUSTAVO GALINDO"

	1.0 CAJILLA												
	NECESIDADES BRUTAS	0	0	720	0	12,250	2,251	4,783	983	4,272	23,581	3,162	4,972
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	720	0	12,250	2,251	4,783	983	4,272	23,581	3,162	4,972
	RECEPCION PEDIDOS PLANIFICADOS	0	0	720	0	12,250	2,251	4,783	983	4,272	23,581	3,162	4,972
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	720	0	12,250	2,251	4,783	983	4,272	23,581	3,162	4,972
													0
	1.1.1 PUNTO												
	NECESIDADES BRUTAS	0	0	17,281	0	294,010	54,024	114,801	23,599	102,532	565,462	75,900	119,318
	DISPONIBILIDAD	22,456	22,456	5,175	5,175	11,164	7,140	17,339	16,740	16,206	748	24,846	5,528
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	0	0	288,836	42,860	107,661	6,860	83,792	549,254	75,154	94,472
	RECEPCION PEDIDOS PLANIFICADOS	0	0	0	0	300,000	50,000	125,000	25,000	100,000	550,000	100,000	100,000
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	300,000	50,000	135,000	25,000	100,000	550,000	100,000	100,000	0	0
	1.1.2 TINTA												
	NECESIDADES BRUTAS	0.00	0.00	5.53	0.00	94.08	17.29	36.74	7.55	32.81	180.95	24.29	38.18
	DISPONIBILIDAD	63.19	63.19	57.66	57.66	63.57	46.28	9.55	2.00	69.19	68.24	93.95	25.77
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	30.43	0.00	0.00	0.00	30.81	111.76	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00	200.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00	200.00	0.00	0.00	0.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS	0	0	17,281	0	294,010	54,024	114,801	23,599	102,532	565,462	75,900	119,318
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	17,281	0	294,010	54,024	114,801	23,599	102,532	565,462	75,900	119,318
	RECEPCION PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,801	23,599	102,532	565,462	75,900	119,318
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,801	23,599	102,532	565,462	75,900	119,318
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS	0	0	17,281	0	294,010	54,024	114,801	23,599	102,532	565,462	75,900	119,318
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	17,281	0	294,010	54,024	114,801	23,599	102,532	565,462	75,900	119,318
	RECEPCION PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,801	23,599	102,532	565,462	75,900	119,318
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	17,281	0	294,010	54,024	114,801	23,599	102,532	565,462	75,900	119,318
	1.2.1 POLIESTIRENO												
	NECESIDADES BRUTAS	0.00	0.00	90.46	0.00	1,029.04	189.09	401.80	82.60	358.86	1,979.12	265.65	417.61
	DISPONIBILIDAD	6.09	6.09	35.61	35.61	41.57	32.49	35.69	43.09	44.23	0.11	4.46	39.85
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	54.39	0.00	993.43	147.51	369.31	48.91	315.77	1,934.89	265.54	413.15
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	90.00	0.00	1,035.00	180.00	405.00	90.00	360.00	1,935.00	270.00	450.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	90.00	0.00	1,035.00	180.00	405.00	90.00	360.00	1,935.00	270.00	450.00	0.00
	1.3.1 REGINA K												
	NECESIDADES BRUTAS	0.00	0.00	22.61	0.00	368.09	71.31	151.54	31.15	135.34	746.41	100.19	157.50
	DISPONIBILIDAD	5.64	5.64	27.83	27.83	44.74	18.42	1.89	15.74	15.38	33.98	23.80	1.30
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	17.17	0.00	360.26	28.58	133.11	29.26	119.61	731.02	66.20	133.70
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	45.00	0.00	405.00	45.00	135.00	45.00	135.00	765.00	90.00	135.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	45.00	0.00	405.00	45.00	135.00	45.00	135.00	765.00	90.00	135.00

POLITECNICA DEL LITORAL
BIBLIOTECA GENERAL ROBERTO GILBERT

	1.4.1 POLIETILENO BAJA DENSIDAD												
	NECESIDADES BRUTAS	0.00	0.00	1.97	0.00	33.52	8.16	13.09	2.69	11.69	64.46	8.65	13.80
	DISPONIBILIDAD	15.01	15.01	13.04	13.04	24.52	16.36	5.28	2.59	35.90	16.44	7.78	39.18
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	20.48	0.00	0.00	0.00	9.10	28.56	0.00	5.82
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	45.00	0.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	45.00	0.00	45.00	0.00

	1.4.2 COLORANTE												
	NECESIDADES BRUTAS	0.00	0.00	0.03	0.00	0.53	0.10	0.21	0.04	0.18	1.02	0.14	0.21
	DISPONIBILIDAD	43.11	43.11	43.07	43.07	42.55	42.45	42.24	42.20	42.01	41.00	40.86	40.64
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO												
	NECESIDADES BRUTAS	0.00	0.00	10.37	0.00	176.41	32.41	68.88	14.16	61.52	339.28	45.54	71.59
	DISPONIBILIDAD	43.47	43.47	33.10	33.10	36.70	4.28	25.40	11.24	39.72	15.45	14.91	33.32
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	143.30	0.00	64.60	0.00	50.28	299.55	30.09	56.68
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	180.00	0.00	90.00	0.00	90.00	315.00	45.00	90.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	180.00	0.00	90.00	0.00	90.00	315.00	45.00	90.00	0.00

	1.1.3.2 COLORANTE												
	NECESIDADES BRUTAS	0.00	0.00	0.29	0.00	5.00	0.92	1.95	0.40	1.74	9.61	1.29	2.03
	DISPONIBILIDAD	27.11	27.11	26.81	26.81	21.81	20.90	18.94	18.54	16.80	7.19	5.90	3.87
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.4.1 POLIACETAL NATURAL												
	NECESIDADES BRUTAS	0.00	0.00	2.94	0.00	49.98	9.16	19.52	4.01	17.43	96.13	12.90	20.28
	DISPONIBILIDAD	1.07	1.07	43.13	43.13	38.15	28.96	9.45	5.44	33.01	28.88	13.97	38.69
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	1.87	0.00	6.85	0.00	0.00	0.00	11.99	63.12	0.00	6.31
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	45.00	0.00	45.00	0.00	0.00	0.00	45.00	90.00	0.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	45.00	0.00	0.00	0.00	45.00	90.00	0.00	45.00	0.00	0.00	0.00

	1.1.4.2 COLORANTE												
	NECESIDADES BRUTAS	0.00	0.00	0.47	0.00	7.94	1.46	3.10	0.64	2.77	15.27	2.05	3.22
	DISPONIBILIDAD	16.58	16.58	16.11	16.11	8.18	6.72	3.62	2.98	0.21	29.95	27.90	24.67
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.05	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00

APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

	NEGRO EXP2	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
	lo:	83,636											
	Ft		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	It		0	0	0	0	0	0	0	0	0	0	0
	MPS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	NEGRO EXP2												
	NECESIDADES BRUTAS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	RECEPCION PEDIDOS PLANIFICADOS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	1.1REPUESTO												
	NECESIDADES BRUTAS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	RECEPCION PEDIDOS PLANIFICADOS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	1.2 BARRIL												
	NECESIDADES BRUTAS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	RECEPCION PEDIDOS PLANIFICADOS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	1.3 TAPA												
	NECESIDADES BRUTAS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	RECEPCION PEDIDOS PLANIFICADOS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	1.4 BOTON												
	NECESIDADES BRUTAS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	RECEPCION PEDIDOS PLANIFICADOS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	173,458	0	32,509	106,545	144,547	10,004	133,826	519,242	25,036	190,684
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS		0	145	0	27	89	120	8	112	433	21	159
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	145	0	27	89	120	8	112	433	21	159
	RECEPCION PEDIDOS PLANIFICADOS		0	145	0	27	89	120	8	112	433	21	159
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	145	0	27	89	120	8	112	433	21	159

	1.6 CAJILLA											
	NECESIDADES BRUTAS		0	7,227	0	1,355	4,439	6,023	417	5,576	21,635	1,043	7,945
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	7,227	0	1,355	4,439	6,023	417	5,576	21,635	1,043	7,945
	RECEPCION PEDIDOS PLANIFICADOS		0	7,227	0	1,355	4,439	6,023	417	5,576	21,635	1,043	7,945
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	7,227	0	1,355	4,439	6,023	417	5,576	21,635	1,043	7,945
	1.1.1 PUNTO												
	NECESIDADES BRUTAS		0	173,456	0	32,509	106,545	144,547	10,004	133,826	519,242	25,038	190,684
	DISPONIBILIDAD		0	1,542	1,542	19,032	12,486	17,941	7,937	24,109	4,868	4,829	14,145
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	173,456	0	30,968	87,512	132,059	0	125,891	495,132	20,171	185,685
	RECEPCION PEDIDOS PLANIFICADOS		0	175,000	0	50,000	100,000	150,000	0	150,000	500,000	25,000	200,000
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	50,000	100,000	150,000	0	150,000	500,000	25,000	200,000	0	0
	1.1.2 TINTA	*0.00032 K											
	NECESIDADES BRUTAS		0.00	55.51	0.00	10.40	34.09	46.25	3.20	42.82	166.16	8.01	61.02
	DISPONIBILIDAD		0.00	44.49	44.49	34.09	0.00	53.74	50.54	7.71	41.56	33.55	72.53
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	55.51	0.00	0.00	0.00	46.26	0.00	0.00	158.44	0.00	27.47
	RECEPCION PEDIDOS PLANIFICADOS		0.00	100.00	0.00	0.00	0.00	100.00	0.00	0.00	200.00	0.00	100.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	100.00	0.00	0.00	200.00	0.00	100.00	0.00	0.00
	1.1.3 TUBO												
	NECESIDADES BRUTAS		0	173,456	0	32,509	106,545	144,547	10,004	133,826	519,242	25,038	190,684
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	173,456	0	32,509	106,545	144,547	10,004	133,826	519,242	25,038	190,684
	RECEPCION PEDIDOS PLANIFICADOS		0	173,456	0	32,509	106,545	144,547	10,004	133,826	519,242	25,038	190,684
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	173,456	0	32,509	106,545	144,547	10,004	133,826	519,242	25,038	190,684
	1.1.4 SOPORTE												
	NECESIDADES BRUTAS		0	173,456	0	32,509	106,545	144,547	10,004	133,826	519,242	25,038	190,684
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	173,456	0	32,509	106,545	144,547	10,004	133,826	519,242	25,038	190,684
	RECEPCION PEDIDOS PLANIFICADOS		0	173,456	0	32,509	106,545	144,547	10,004	133,826	519,242	25,038	190,684
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	173,456	0	32,509	106,545	144,547	10,004	133,826	519,242	25,038	190,684
	1.2.1 POLIESTIRENO	0.0035 KG											
	NECESIDADES BRUTAS		0.00	607.10	0.00	113.78	372.91	505.91	35.01	468.40	1,817.35	87.63	667.40
	DISPONIBILIDAD		0.00	22.90	22.90	44.11	31.21	20.29	30.28	11.88	39.54	41.90	4.51
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	607.10	0.00	90.89	328.79	474.71	14.72	438.12	1,805.46	46.10	625.49
	RECEPCION PEDIDOS PLANIFICADOS		0.00	630.00	0.00	135.00	360.00	495.00	45.00	450.00	1,845.00	90.00	630.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		630.00	0.00	135.00	360.00	495.00	45.00	450.00	1,845.00	90.00	630.00	0.00
	1.3.1 RESINA K	0.00132 KG											
	NECESIDADES BRUTAS		0.00	228.97	0.00	42.91	140.64	190.80	13.20	176.65	685.40	33.05	251.70
	DISPONIBILIDAD		0.00	41.03	41.03	43.12	37.48	28.66	13.46	16.82	8.43	16.37	30.67
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	228.97	0.00	1.88	97.52	153.32	0.00	163.18	668.57	26.63	233.33
	RECEPCION PEDIDOS PLANIFICADOS		0.00	270.00	0.00	45.00	135.00	180.00	0.00	180.00	675.00	45.00	270.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	270.00	0.00	45.00	135.00	180.00	0.00	180.00	675.00	45.00	270.00

	1.4.1 POLIETILENO BAJA DENSIDAD	0.0001140 KG										
	NECESIDADES BRUTAS		0.00	19.77	0.00	3.71	12.15	18.46	1.14	15.26	59.19	2.85	21.74
	DISPONIBILIDAD		45.00	25.23	25.23	21.52	9.37	37.90	38.75	21.50	7.30	4.45	27.71
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	7.10	0.00	0.00	37.70	0.00	17.29
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	45.00	0.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	0.00	0.00	45.00	0.00	45.00	0.00

	1.4.2 COLORANTE	0.0000018 KG										
	NECESIDADES BRUTAS		0.00	0.31	0.00	0.06	0.19	0.28	0.02	0.24	0.93	0.05	0.34
	DISPONIBILIDAD		45.00	44.69	44.69	44.63	44.44	44.16	44.16	43.92	42.98	42.94	42.60
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO	0.0006000 KG										
	NECESIDADES BRUTAS		0.00	104.05	0.00	19.51	63.93	86.73	6.00	80.30	311.55	15.02	114.41
	DISPONIBILIDAD		0.00	30.92	30.92	11.42	37.49	40.76	34.78	44.47	2.92	32.90	8.49
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	104.05	0.00	0.00	52.51	49.24	0.00	45.53	267.06	12.10	81.51
	RECEPCION PEDIDOS PLANIFICADOS		0.00	135.00	0.00	0.00	90.00	90.00	0.00	90.00	270.00	45.00	90.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		135.00	0.00	0.00	90.00	90.00	0.00	90.00	270.00	45.00	90.00	0.00

	1.1.3.2 COLORANTE	0.0000170 KG										
	NECESIDADES BRUTAS		0.00	2.95	0.00	0.55	1.81	2.46	0.17	2.28	8.83	0.43	3.24
	DISPONIBILIDAD		0.00	42.05	42.05	41.50	39.69	37.23	37.06	34.78	25.96	25.53	22.29
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	2.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.4.1 POLIACETAL NATURAL	0.0001700 KG										
	NECESIDADES BRUTAS		0.00	29.49	0.00	5.53	18.11	24.57	1.70	22.75	88.27	4.26	32.42
	DISPONIBILIDAD		0.00	15.51	15.51	9.99	38.87	12.30	10.60	32.85	34.58	30.32	42.90
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	29.49	0.00	0.00	8.13	0.00	0.00	12.15	55.42	0.00	2.10
	RECEPCION PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	45.00	0.00	0.00	45.00	90.00	0.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	45.00	90.00	0.00	45.00	0.00	0.00	0.00

	1.1.4.2 COLORANTE	0.0000270										
	NECESIDADES BRUTAS		0.00	4.68	0.00	0.88	2.88	3.90	0.27	3.61	14.02	0.68	5.15
	DISPONIBILIDAD		0.00	40.32	40.32	39.44	36.56	32.66	32.39	28.78	14.76	14.08	8.93
NIVEL 3	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	4.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	NEGRO EXP2	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	to:												
	Pt	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	It	0	0	0	0	0	0	0	0	0	0	0	0
	MPS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	NEGRO EXP2												
	NECESIDADES BRUTAS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	RECEPCION PEDIDOS PLANIFICADOS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	1.1REPUESTO												
	NECESIDADES BRUTAS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	RECEPCION PEDIDOS PLANIFICADOS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	1.2 BARRIL												
	NECESIDADES BRUTAS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	RECEPCION PEDIDOS PLANIFICADOS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	1.3 TAPA												0
	NECESIDADES BRUTAS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	RECEPCION PEDIDOS PLANIFICADOS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	1.4 BOTON												
	NECESIDADES BRUTAS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	RECEPCION PEDIDOS PLANIFICADOS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	207,125	0	38,621	126,267	170,697	11,800	157,505	609,772	29,341	222,992
	1.5 CAJA MASTER												
	NECESIDADES BRUTAS	0	0	173	0	32	105	142	10	131	508	24	186
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	173	0	32	105	142	10	131	508	24	186
	RECEPCION PEDIDOS PLANIFICADOS	0	0	173	0	32	105	142	10	131	508	24	186
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	173	0	32	105	142	10	131	508	24	186

NIVEL 1	1.6 CAJILLA	0	0	6,630	0	1,609	5,261	7,121	492	6,563	25,407	1,223	9,291	
	NECESIDADES BRUTAS	0	0	0	0	0	0	0	0	0	0	0	0	
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0	
	RECEPCIONES PROGRAMADAS	0	0	6,630	0	1,609	5,261	7,121	492	6,563	25,407	1,223	9,291	
	NECESIDADES NETAS	0	0	6,630	0	1,609	5,261	7,121	492	6,563	25,407	1,223	9,291	
	RECEPCION PEDIDOS PLANIFICADOS	0	0	6,630	0	1,609	5,261	7,121	492	6,563	25,407	1,223	9,291	
	LANZAMIENTO PEDIDOS PLANIFICADOS													0
NIVEL 2	1.1.1 PUNTO	0	0	207,125	0	38,621	126,267	170,897	11,800	157,505	609,772	29,341	222,992	
	NECESIDADES BRUTAS	14,145	14,145	7,020	7,020	16,398	17,131	21,234	9,435	1,939	17,167	12,825	14,634	
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0	
	RECEPCIONES PROGRAMADAS	0	0	192,980	0	31,602	107,669	153,766	0	148,070	607,633	12,175	210,166	
	NECESIDADES NETAS	0	0	200,000	0	50,000	125,000	175,000	0	150,009	625,000	25,000	225,000	
	RECEPCION PEDIDOS PLANIFICADOS	200,000	0	50,000	125,000	175,000	0	150,009	625,000	25,000	225,000	0	0	
	LANZAMIENTO PEDIDOS PLANIFICADOS													
NIVEL 2	1.1.2 TINTA	0.00	0.00	66.26	0.00	12.36	40.41	54.69	3.76	50.40	195.13	9.39	71.36	
	NECESIDADES BRUTAS	72.53	72.53	6.25	6.25	93.89	53.48	98.80	95.02	44.62	49.49	40.10	68.74	
	DISPONIBILIDAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	8.11	0.00	1.20	0.00	0.00	150.51	0.00	31.26	
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	100.00	0.00	100.00	0.00	0.00	200.00	0.00	100.00	
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	100.00	0.00	100.00	0.00	0.00	300.00	0.00	100.00	0.00	
	LANZAMIENTO PEDIDOS PLANIFICADOS													
NIVEL 2	1.1.3 TUBO	0	0	207,125	0	38,621	126,267	170,897	11,800	157,505	609,772	29,341	222,992	
	NECESIDADES BRUTAS	0	0	0	0	0	0	0	0	0	0	0	0	
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0	
	RECEPCIONES PROGRAMADAS	0	0	207,125	0	38,621	126,267	170,897	11,800	157,505	609,772	29,341	222,992	
	NECESIDADES NETAS	0	0	207,125	0	38,621	126,267	170,897	11,800	157,505	609,772	29,341	222,992	
	RECEPCION PEDIDOS PLANIFICADOS	0	0	207,125	0	38,621	126,267	170,897	11,800	157,505	609,772	29,341	222,992	
	LANZAMIENTO PEDIDOS PLANIFICADOS													
NIVEL 2	1.1.4 SOPORTE	0	0	207,125	0	38,621	126,267	170,897	11,800	157,505	609,772	29,341	222,992	
	NECESIDADES BRUTAS	0	0	0	0	0	0	0	0	0	0	0	0	
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0	
	RECEPCIONES PROGRAMADAS	0	0	207,125	0	38,621	126,267	170,897	11,800	157,505	609,772	29,341	222,992	
	NECESIDADES NETAS	0	0	207,125	0	38,621	126,267	170,897	11,800	157,505	609,772	29,341	222,992	
	RECEPCION PEDIDOS PLANIFICADOS	0	0	207,125	0	38,621	126,267	170,897	11,800	157,505	609,772	29,341	222,992	
	LANZAMIENTO PEDIDOS PLANIFICADOS													
NIVEL 2	1.2.1 POLIESTIRENO	0.00	0.00	724.94	0.00	135.17	441.93	598.14	41.30	551.27	2,134.20	102.69	780.47	
	NECESIDADES BRUTAS	4.51	4.51	44.57	44.57	44.39	7.46	39.32	43.02	31.75	12.55	44.86	29.39	
	DISPONIBILIDAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	RECEPCIONES PROGRAMADAS	0.00	0.00	720.43	0.00	90.81	397.54	560.86	1.98	508.25	2,102.45	90.14	735.61	
	NECESIDADES NETAS	0.00	0.00	765.00	0.00	135.00	405.00	630.00	45.00	540.00	2,115.00	135.00	765.00	
	RECEPCION PEDIDOS PLANIFICADOS	0.00	765.00	0.00	135.00	405.00	630.00	45.00	540.00	2,115.00	135.00	765.00	0.00	
	LANZAMIENTO PEDIDOS PLANIFICADOS													
NIVEL 2	1.3.1 RESINA K	0.00	0.00	273.41	0.00	50.98	166.67	225.58	15.58	207.91	804.90	38.73	294.35	
	NECESIDADES BRUTAS	36.67	36.67	33.27	33.27	27.29	40.61	40.03	24.45	41.55	1.65	7.92	28.57	
	DISPONIBILIDAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	RECEPCIONES PROGRAMADAS	0.00	0.00	236.73	0.00	17.71	139.39	184.97	0.00	183.45	763.35	37.08	286.43	
	NECESIDADES NETAS	0.00	0.00	270.00	0.00	45.00	180.00	225.00	0.00	225.00	765.00	45.00	315.00	
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	270.00	0.00	45.00	180.00	225.00	0.00	225.00	765.00	45.00	315.00	
	LANZAMIENTO PEDIDOS PLANIFICADOS													

	1.4.1 POLIETILENO BAJA DENSIDAD												
	NECESIDADES BRUTAS	0.00	0.00	23.61	0.00	4.40	14.39	19.48	1.35	17.96	69.51	3.34	25.42
	DISPONIBILIDAD	27.71	27.71	4.10	4.10	44.70	30.30	10.82	9.48	36.52	12.01	8.66	28.24
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	8.48	32.99	0.00	16.76
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	45.00	0.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	45.00	0.00	0.00	0.00	45.00	45.00	0.00	45.00	0.00

	1.4.2 COLORANTE												
	NECESIDADES BRUTAS	0.00	0.00	0.37	0.00	0.07	0.23	0.31	0.02	0.28	1.10	0.05	0.40
	DISPONIBILIDAD	42.60	42.60	42.22	42.22	42.15	41.93	41.62	41.60	41.31	40.22	40.16	39.76
NIVEL 2	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	1.1.3.1 POLIETILENO												
	NECESIDADES BRUTAS	0.00	0.00	124.28	0.00	23.17	75.78	102.54	7.08	94.50	365.66	17.60	133.79
	DISPONIBILIDAD	8.49	8.49	19.21	19.21	41.04	10.28	42.74	35.66	31.16	25.29	7.69	8.89
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	115.79	0.00	3.96	34.72	92.26	0.00	68.84	334.71	0.00	126.11
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	135.00	0.00	45.00	45.00	135.00	0.00	90.00	360.00	0.00	135.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	135.00	0.00	45.00	45.00	135.00	0.00	90.00	360.00	0.00	135.00	0.00

	1.1.3.2 COLORANTE												
	NECESIDADES BRUTAS	0.00	0.00	3.52	0.00	0.66	2.15	2.91	0.20	2.68	10.37	0.50	3.79
	DISPONIBILIDAD	22.29	22.29	18.77	18.77	18.11	15.97	13.06	12.86	10.18	44.82	44.32	40.53
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00

	1.1.4.1 POLIACETAL NATURAL												
	NECESIDADES BRUTAS	0.00	0.00	35.21	0.00	6.57	21.47	29.05	2.01	26.76	103.66	4.99	37.91
	DISPONIBILIDAD	42.90	42.90	7.69	7.69	41.13	19.66	28.61	25.60	35.83	12.17	41.18	39.27
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	5.00	0.00	7.00	0.00	9.00	10.00	11.00	12.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	3.87	0.00	16.39	0.00	9.17	77.83	3.82	8.73
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	45.00	0.00	45.00	0.00	45.00	90.00	45.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	45.00	0.00	45.00	0.00	45.00	90.00	45.00	45.00	0.00

	1.1.4.2 COLORANTE												
	NECESIDADES BRUTAS	0.00	0.00	5.59	0.00	1.04	3.41	4.61	0.32	4.25	16.46	0.79	6.02
	DISPONIBILIDAD	8.93	8.93	3.34	3.34	2.30	43.89	39.27	38.95	34.70	18.24	17.45	11.43
NIVEL 3	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

APENDICE 22
PLAN DE REQUERIMIENTOS DE MATERIALES (MRP)

	ROJO EXP2	ACTUAL	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
	Io:	47,793											
	Ft		0	9,112	0	0	0	13,161	0	42,606	31,912	14,691	119,501
	It		47,793	38,681	38,681	38,681	38,681	25,520	25,520	0	0	0	0
	MPS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
NIVEL 0	ROJO EXP2		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	NECESIDADES BRUTAS		0	0	0	0	0	0	0	0	0	0	0
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	NECESIDADES NETAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
NIVEL 1	1.1REPUESTO		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	NECESIDADES BRUTAS		0	0	0	0	0	0	0	0	0	0	0
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	NECESIDADES NETAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
NIVEL 1	1.2 BARRIL		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	NECESIDADES BRUTAS		0	0	0	0	0	0	0	0	0	0	0
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	NECESIDADES NETAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
NIVEL 1	1.3 TAPA		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	NECESIDADES BRUTAS		0	0	0	0	0	0	0	0	0	0	0
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	NECESIDADES NETAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
NIVEL 1	1.4 BOTON		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	NECESIDADES BRUTAS		0	0	0	0	0	0	0	0	0	0	0
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	NECESIDADES NETAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
NIVEL 1	1.5 CAJA MASTER		0	0	0	0	0	0	0	14	27	12	100
	NECESIDADES BRUTAS		0	0	0	0	0	0	0	0	0	0	0
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	14	27	12	100
	NECESIDADES NETAS		0	0	0	0	0	0	0	14	27	12	100
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	14	27	12	100
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	14	27	12	100

	1.6 CAJILLA												
	NECESIDADES BRUTAS		0	0	0	0	0	0	0	708	1,330	612	4,979
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	0	0	708	1,330	612	4,979
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	708	1,330	612	4,979
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	708	1,330	612	4,979

	1.1.1 PUNTO												
	NECESIDADES BRUTAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	DISPONIBILIDAD		0	0	0	0	0	0	0	8,014	1,102	11,411	16,911
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	0	0	16,986	23,898	13,589	108,089
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	25,000	25,000	25,000	125,000
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	25,000	25,000	25,000	125,000	0	0

	1.1.2 TINTA	*0.00032 lt											
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.44	10.21	4.70	38.24
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	0.00	0.00	0.00	94.56	84.35	79.65	41.41
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.44	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00

	1.1.3 TUBO												
	NECESIDADES BRUTAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501

	1.1.4 SOPORTE												
	NECESIDADES BRUTAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	DISPONIBILIDAD		0	0	0	0	0	0	0	0	0	0	0
NIVEL 2	RECEPCIONES PROGRAMADAS		0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	RECEPCION PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501
	LANZAMIENTO PEDIDOS PLANIFICADOS		0	0	0	0	0	0	0	16,986	31,912	14,691	119,501

	1.2.1 POLIESTIRENO	0.0035 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	59.45	111.69	51.42	418.25
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.55	8.86	47.44	34.19
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	59.45	81.14	42.56	370.81
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	90.00	90.00	405.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	90.00	90.00	90.00	405.00	0.00

	1.3.1 RESINA K	0.00132 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.42	42.12	19.39	157.74
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.58	23.45	6.06	28.32
NIVEL 2	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.42	19.65	0.00	151.68
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	45.00	0.00	180.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	45.00	0.00	180.00

NIVEL 2	1.4.1 POLIETILENO BAJA DENSIDAD	0.00 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.94	3.84	1.87	13.02
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.06	39.43	37.75	24.13
	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.94	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00

NIVEL 2	1.4.2 COLORANTE	0.00 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.06	0.03	0.22
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.97	44.91	44.89	44.67
	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00

NIVEL 3	1.1.3.1 POLIETILENO	0.00 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.19	19.15	8.81	71.70
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.81	15.66	6.85	25.15
	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.19	0.00	0.00	64.85
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	90.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	90.00	0.00

NIVEL 3	1.1.3.2 COLORANTE	0.00 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.64	0.26	2.03
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.71	44.17	43.92	41.89
	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00

NIVEL 3	1.1.4.1 POLIACETAL NATURAL	0.00 KG											
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.69	5.43	2.50	20.32
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	0.00	0.00	0.00	42.11	39.69	34.19	13.87
	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.69	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00

NIVEL 3	1.1.4.2 COLORANTE	0.00											
	NECESIDADES BRUTAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.86	0.40	3.23
	DISPONIBILIDAD		0.00	0.00	0.00	0.00	0.00	0.00	0.00	44.54	43.68	43.28	40.06
	RECEPCIONES PROGRAMADAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS		0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00

	ROJO EXP2	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
	lo:												
	Ft	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	It	0	0	0	0	0	0	0	0	0	0	0	0
	MPS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	ROJO EXP2												
	NECESIDADES BRUTAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 0	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	RECEPCION PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	1.1REPUESTO												
	NECESIDADES BRUTAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	RECEPCION PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	1.2 BARRIL												
	NECESIDADES BRUTAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	RECEPCION PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	1.3 TAPA												0
	NECESIDADES BRUTAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	RECEPCION PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	1.4 BOTON												
	NECESIDADES BRUTAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	
	NECESIDADES NETAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	RECEPCION PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	1.5 CAJA MASTER												119
	NECESIDADES BRUTAS	0	0	9	0	0	0	13	0	42	31	14	0
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
NIVEL 1	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	119
	NECESIDADES NETAS	0	0	9	0	0	0	13	0	42	31	14	119
	RECEPCION PEDIDOS PLANIFICADOS	0	0	9	0	0	0	13	0	42	31	14	119
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	9	0	0	0	13	0	42	31	14	119

NIVEL 1	1.6 CAJILLA												
	NECESIDADES BRUTAS	0	0	463	0	0	0	648	0	2,084	1,561	717	5,822
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	463	0	0	0	648	0	2,084	1,561	717	5,822
	RECEPCION PEDIDOS PLANIFICADOS	0	0	463	0	0	0	648	0	2,084	1,561	717	5,822
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	463	0	0	0	648	0	2,084	1,561	717	5,822
													0
NIVEL 2	1.1.1 PUNTO												
	NECESIDADES BRUTAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	DISPONIBILIDAD	16,911	16,911	6,031	6,031	6,031	6,031	15,473	15,473	15,450	2,976	10,763	21,026
	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	0	0	0	0	9,527	0	34,550	22,022	14,237	125,974
	RECEPCION PEDIDOS PLANIFICADOS	0	0	0	0	0	0	25,000	0	50,000	25,000	25,000	150,000
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	0	0	25,000	0	50,000	25,000	25,000	150,000	0	0
NIVEL 2	1.1.2 TINTA												
	NECESIDADES BRUTAS	0.00	0.00	3.46	0.00	0.00	0.00	4.98	0.00	16.01	11.99	5.51	44.72
	DISPONIBILIDAD	41.41	41.41	37.93	37.93	37.93	37.93	32.95	32.95	16.94	4.95	99.44	54.73
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00
NIVEL 2	1.1.3 TUBO												
	NECESIDADES BRUTAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	RECEPCION PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
NIVEL 2	1.1.4 SOPORTE												
	NECESIDADES BRUTAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	DISPONIBILIDAD	0	0	0	0	0	0	0	0	0	0	0	0
	RECEPCIONES PROGRAMADAS	0	0	0	0	0	0	0	0	0	0	0	0
	NECESIDADES NETAS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	RECEPCION PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
	LANZAMIENTO PEDIDOS PLANIFICADOS	0	0	10,879	0	0	0	15,558	0	50,023	37,473	17,215	139,736
NIVEL 2	1.2.1 POLIESTIRENO												
	NECESIDADES BRUTAS	0.00	0.00	38.08	0.00	0.00	0.00	54.46	0.00	175.08	131.15	60.25	489.08
	DISPONIBILIDAD	34.19	34.19	41.11	41.11	41.11	41.11	31.65	31.65	36.58	40.42	25.17	31.09
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	3.89	0.00	0.00	0.00	13.35	0.00	143.42	94.58	19.83	463.91
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	45.00	0.00	0.00	0.00	45.00	0.00	180.00	135.00	45.00	495.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	45.00	0.00	0.00	0.00	45.00	0.00	180.00	135.00	45.00	495.00	0.00
NIVEL 2	1.3.1 RESINA K												
	NECESIDADES BRUTAS	0.00	0.00	14.36	0.00	0.00	0.00	20.54	0.00	66.03	49.46	22.72	184.45
	DISPONIBILIDAD	28.32	28.32	13.96	13.96	13.96	13.96	38.42	38.42	17.39	12.93	35.21	30.75
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	6.58	0.00	27.61	32.07	9.79	149.25
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	45.00	45.00	45.00	180.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	45.00	45.00	45.00	180.00

NIVEL 2	1.4.1 POLIETILENO BAJA DENSIDAD												
	NECESIDADES BRUTAS	0.00	0.00	1.24	0.00	0.00	0.00	1.77	0.00	5.70	4.27	1.98	15.93
	DISPONIBILIDAD	24.13	24.13	22.89	22.89	22.89	22.89	21.11	21.11	15.41	11.14	9.16	38.25
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.75
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00

NIVEL 2	1.4.2 COLORANTE												
	NECESIDADES BRUTAS	0.00	0.00	0.02	0.00	0.00	0.00	0.03	0.00	0.09	0.07	0.03	0.25
	DISPONIBILIDAD	44.67	44.67	44.65	44.65	44.65	44.65	44.62	44.62	44.53	44.47	44.43	44.18
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NIVEL 3	1.1.3.1 POLIETILENO												
	NECESIDADES BRUTAS	0.00	0.00	9.53	0.00	0.00	0.00	9.34	0.00	30.01	22.48	10.33	83.64
	DISPONIBILIDAD	28.15	28.15	18.62	18.62	18.62	18.62	9.28	9.28	24.27	1.79	36.46	42.82
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.73	0.00	8.54	47.36
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	45.00	90.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	45.00	90.00	0.00

NIVEL 3	1.1.3.2 COLORANTE												
	NECESIDADES BRUTAS	0.00	0.00	0.18	0.00	0.00	0.00	0.26	0.00	0.85	0.64	0.29	2.38
	DISPONIBILIDAD	41.89	41.89	41.70	41.70	41.70	41.70	41.44	41.44	40.59	39.95	39.66	37.28
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NIVEL 3	1.1.4.1 POLIACETAL NATURAL												
	NECESIDADES BRUTAS	0.00	0.00	1.86	0.00	0.00	0.00	2.64	0.00	8.50	6.37	2.93	23.76
	DISPONIBILIDAD	13.87	13.87	12.03	12.03	12.03	12.03	9.38	9.38	0.88	39.51	36.58	12.82
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.49	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45.00	0.00	0.00	0.00

NIVEL 3	1.1.4.2 COLORANTE												
	NECESIDADES BRUTAS	0.00	0.00	0.29	0.00	0.00	0.00	0.42	0.00	1.35	1.01	0.46	3.77
	DISPONIBILIDAD	40.06	40.06	39.76	39.76	39.76	39.76	39.34	39.34	37.99	36.98	36.52	32.74
	RECEPCIONES PROGRAMADAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NECESIDADES NETAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECEPCION PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LANZAMIENTO PEDIDOS PLANIFICADOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TAPA TRANSPARENTE	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
TOTAL	982,679	1,539,963	1,474,383	2,099,891	1,144,388	2,837,833	2,971,135	2,322,355	2,035,586	1,513,875	1,229,678

BOTON	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
TOTAL AZUL LOCAL	521,087	566,236	924,070	2,331,746	1,431,212	1,945,952	2,464,230	1,647,958	783,323	803,576	721,812
TOTAL NEGRO LOCAL	257,442	1,324,945	1,516,749	1,519,299	781,079	1,179,766	1,650,539	1,195,656	717,854	759,261	406,171
TOTAL ROJO LOCAL	269,887	1,151,347	1,223,106	1,302,916	1,160,686	1,081,601	1,623,674	1,049,344	354,807	662,354	338,823
VERDE1	0	0	0	0	0	5,007	81,963	28,947	19,359	8,316	3,202
TOTAL AZUL EXP	0	319,782	555,312	504,934	700,366	97,100	223,519	228,036	2,477,995	2,545,865	1,123,538
VERDE EXP 1	0	0	48,443	20,216	107,080	0	7,133	84,501	126,497	24,635	84,056
TOTAL NEGRO EXP	0	837,419	125	291,044	1,578,706	144,547	64,158	502,812	3,389,733	2,128,216	1,318,233
TOTAL ROJO EXP	46,360	0	0	0	0	121,273	382,213	366,105	971,876	404,651	238,818

TUBO TRANSPARENTE	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
TOTAL LOCAL	0	1,552,197	2,189,541	3,240,998	2,380,720	1,616,140	2,879,282	1,837,483	872,422	824,130	652,546
TOTAL EXPORTACION	12,160	89,782	568,880	629,265	2,234,022	121,273	647,012	943,521	5,933,436	4,998,868	2,352,429

TUBO AMARILLO											
TOTAL LOCAL	269,887	1,265,947	1,474,383	1,473,312	992,257	2,596,186	2,941,124	2,084,421	1,002,920	1,409,377	817,462
TOTAL EXPORTACION	0	173,458	0	186,929	152,131	241,647	30,010	237,933	1,032,665	104,499	412,216

SOPORTE	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
TOTAL LOCAL 1	0	1,425,697	2,189,541	3,240,998	2,380,720	1,616,140	2,879,282	1,837,483	872,422	824,130	652,546
TOTAL EXPORTACION 1	46,360	109,782	568,755	587,351	2,234,022	121,273	647,012	943,521	5,933,436	4,998,868	2,352,429
TOTAL LOCAL 2	982,679	1,366,505	1,474,383	1,912,962	992,257	2,596,186	2,941,124	2,084,421	1,002,920	1,409,377	817,462
TOTAL EXPORTACION 2	0	173,458	0	186,929	152,131	241,647	30,010	237,933	1,032,665	104,499	412,216

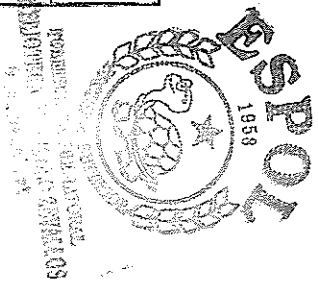
TAPA TRANSPARENTE												
	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL	1,813,796	1,391,094	3,363,243	2,960,498	2,601,715	1,354,450	3,366,220	3,499,717	2,759,860	2,388,902	1,771,872	1,436,783

BOTON												
	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL AZUL LOCAL	1,492,770	1,277,201	2,173,904	2,306,082	2,765,800	1,693,564	2,297,289	2,902,548	1,936,802	918,642	940,424	843,016
TOTAL NEGRO LOCAL	1,303,373	458,280	2,022,688	1,805,181	1,804,436	925,485	1,393,732	1,945,590	1,406,273	842,387	889,098	474,731
TOTAL ROJO LOCAL	829,855	424,168	1,541,195	1,455,412	1,547,182	1,374,821	1,277,592	1,913,853	1,234,062	416,379	775,500	395,909
VERDE1	11,829	54,247	6,166	3,419	0	3,947	69,084	96,689	34,072	22,736	9,745	3,745
TOTAL AZUL EXP	574,549	593,344	1,156,960	661,397	710,437	830,032	114,801	263,662	268,384	2,910,091	2,983,451	1,313,924
VERDE EXP 1	74,987	20,621	33,962	140,027	24,018	126,911	0	8,414	99,458	148,562	28,870	98,304
TOTAL NEGRO EXP	694,477	459,215	1,019,970	149	345,381	1,868,835	170,897	75,606	591,288	3,977,095	2,491,366	1,540,227
TOTAL ROJO EXP	298,642	252,868	26,852	0	0	0	158,769	450,328	460,448	1,140,118	473,706	279,125

TUBO TRANSPARENTE												
	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL LOCAL	1,824,032	822,802	2,615,996	2,609,595	3,848,334	2,823,659	1,972,733	3,394,363	2,161,408	1,023,949	965,352	762,663
TOTAL EXPORTACION	1,642,656	1,326,048	2,002,458	801,573	747,205	2,645,486	143,211	762,611	1,109,519	6,963,159	5,854,937	2,749,535

TUBO AMARILLO												
TOTAL LOCAL	1,813,796	1,391,094	3,127,957	2,960,498	2,269,084	1,174,158	3,064,964	3,464,318	2,449,800	1,176,195	1,649,416	954,737
TOTAL EXPORTACION	0	0	235,285	0	332,632	180,291	301,256	35,399	310,060	1,212,707	122,456	482,046

SOPORTE												
	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL LOCAL 1	1,824,032	822,802	2,615,996	2,609,595	3,848,334	2,823,659	1,972,733	3,394,363	2,161,408	1,023,949	965,352	762,663
TOTAL EXPORTACION 1	1,642,656	1,326,048	2,002,458	801,573	747,205	2,645,486	143,211	762,611	1,109,519	6,963,159	5,854,937	2,749,535
TOTAL LOCAL 2	1,813,796	1,391,094	3,127,957	2,960,498	2,269,084	1,174,158	3,064,964	3,464,318	2,449,800	1,176,195	1,649,416	954,737
TOTAL EXPORTACION 2	0	0	235,285	0	332,632	180,291	301,256	35,399	310,060	1,212,707	122,456	482,046



APENDICE 24
ORDENES DE COMPRA CONJUNTAS

CAJA MASTER	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
TOTAL 1 AZUL	106	1,233	1,233	1,327	1,422	625	1,235	778	1,998	2,322	1,118
TOTAL 1 NEGRO	0	1,162	641	1,164	1,747	408	690	784	2,035	2,008	1,117
TOTAL 1 ROJO	39	375	414	717	587	410	939	661	917	495	197
TOTAL 1 VERDE	0	0	40	17	89	4	74	95	122	27	73
TOTAL 2 AZUL	379	0	0	1,037	354	1,077	1,005	785	719	469	420
TOTAL 2 NEGRO	215	679	623	344	220	696	739	631	788	398	320
TOTAL 2 ROJO	225	604	606	368	389	592	732	519	189	394	285

CAJILLA	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
TOTAL 1 AZUL	5,324	61,649	61,641	66,337	71,119	31,273	61,740	38,916	99,921	116,108	55,913
TOTAL 1 NEGRO	0	58,099	32,046	58,214	87,337	20,392	34,515	39,198	131,732	100,403	55,832
TOTAL 1 ROJO	1,932	18,765	20,687	35,867	29,363	20,518	46,962	33,035	45,847	24,741	9,826
TOTAL 1 VERDE	0	0	2,018	842	4,462	209	3,712	4,727	6,077	1,373	3,636
TOTAL 2 AZUL	18,973	0	0	51,858	17,696	53,854	50,249	39,250	35,967	23,452	20,976
TOTAL 2 NEGRO	10,727	33,958	31,157	17,217	10,987	34,787	36,931	31,572	39,418	19,909	16,018
TOTAL 2 ROJO	11,245	30,207	30,275	18,421	18,999	29,601	36,617	25,942	9,431	19,718	14,243

PUNTO (Medio)	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
TOTAL	2,775,000	3,850,000	4,575,000	1,775,000	3,475,000	2,800,000	6,750,000	5,825,000	3,050,000	3,475,000	2,125,000

PUNTO (Fino)	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
TOTAL	1,475,000	2,050,000	1,125,000	2,850,000	2,950,000	2,350,000	2,025,000	1,525,000	1,250,000	1,775,000	1,425,000

TINTA	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
TOTAL AZUL LOCAL	400	600	500	700	600	400	300	300	300	400	400
TOTAL AZUL EXP	200	200	200	0	200	45	800	800	400	200	100
TOTAL NEGRO LOCAL	700	300	100	600	500	300	200	100	400	200	500
TOTAL NEGRO EXP	0	100	500	100	0	100	1,100	700	500	200	100
TOTAL ROJO LOCAL	400	400	400	300	500	400	100	200	100	200	200
TOTAL ROJO EXP.	0	0	0	0	100	200	300	200	0	100	100
VERDE1	0	0	0	0	100	0	0	0	0	0	0
VERDE EXP 1	100	0	0	0	0	0	100	0	0	0	0

POLIESTIRENO	Feb-03	Mar-03	Abr-03	May-03	Jun-03	Jul-03	Ago-03	Sep-03	Oct-03	Nov-03	Dic-03
PRODUCTO											
TOTAL LOCAL	12,915	13,330	13,680	10,890	15,660	17,640	12,285	6,750	9,945	6,165	11,655
TOTAL EXPORTACION	4,050	2,115	2,925	8,325	1,305	2,340	4,140	24,390	17,910	9,675	5,625

CAJA MASTER	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL 1 AZUL	1,123	1,024	1,512	1,467	1,574	1,684	738	1,455	915	2,346	2,721	1,307
TOTAL 1 NEGRO	1,210	445	1,726	763	1,383	2,068	482	814	922	3,091	2,351	1,305
TOTAL 1 ROJO	481	259	577	493	852	696	485	1,108	777	1,076	579	230
TOTAL 1 VERDE	72	62	33	120	20	109	58	88	111	143	32	85
TOTAL 2 AZUL	597	535	1,263	1,006	1,323	419	1,272	1,184	923	844	549	490
TOTAL 2 NEGRO	455	320	810	741	409	260	822	870	742	925	466	374
TOTAL 2 ROJO	459	305	729	720	437	450	712	863	635	221	462	333

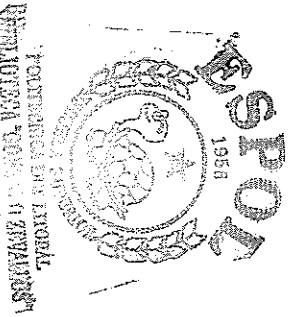
CAJILLA	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL 1 AZUL	56,272	51,201	75,612	73,341	78,714	84,206	36,919	72,737	45,747	117,318	136,045	65,368
TOTAL 1 NEGRO	60,494	22,250	86,280	38,172	69,150	103,421	24,113	40,714	46,116	154,549	117,551	65,237
TOTAL 1 ROJO	24,062	12,965	28,871	24,642	42,616	34,802	24,254	55,377	38,862	53,791	28,973	11,485
TOTAL 1 VERDE	3,617	3,119	1,672	5,977	1,001	3,452	2,879	4,379	5,564	7,137	1,609	4,252
TOTAL 2 AZUL	29,866	26,738	63,174	50,304	66,129	20,944	63,585	59,189	46,136	42,212	27,450	24,505
TOTAL 2 NEGRO	22,750	15,979	40,497	37,050	20,425	13,009	41,080	43,502	37,116	46,263	23,301	18,720
TOTAL 2 ROJO	22,959	15,245	36,464	36,001	21,850	22,482	35,595	43,131	31,742	11,063	23,077	16,641

PUNTO (Medio)	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL	4,600,000	3,400,000	4,650,000	5,450,000	2,175,000	4,120,000	3,225,000	8,000,000	6,775,000	3,550,000	0	0

PUNTO (Fino)	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL	3,300,000	2,975,000	2,625,000	1,325,000	3,400,000	3,475,000	2,775,000	2,375,000	1,800,000	1,425,000	0	0

TINTA	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL AZUL LOCAL	700	800	900	300	700	1,000	600	300	300	300	0	0
TOTAL AZUL EXP	400	200	200	300	0	100	0	900	1,100	400	0	0
TOTAL NEGRO LOCAL	500	700	500	200	500	600	400	200	300	100	0	0
TOTAL NEGRO EXP	300	0	100	700	0	100	100	1,100	1,000	400	100	0
TOTAL ROJO LOCAL	500	400	600	400	400	700	300	200	200	100	0	0
TOTAL ROJO EXP.	0	0	0	0	0	200	100	400	100	200	0	0
VERDE1	0	0	0	0	0	0	100	0	0	0	0	0
VERDE EXP 1	0	100	0	0	0	0	45	45	0	45	0	0

POLIESTIRENO	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
PRODUCTO												
TOTAL LOCAL	10,440	21,195	19,890	16,200	13,005	18,540	20,790	14,490	7,785	8,550	4,545	0
TOTAL EXPORTACION	4,725	7,875	2,835	3,735	9,855	1,575	2,835	4,950	28,530	20,970	11,295	0



POLIPROPILENO												
	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL LOCAL	2,250	1,800	3,420	2,565	4,140	2,700	1,710	2,340	1,755	540	675	405
TOTAL EXPORTACION	1,800	1,395	2,160	855	810	2,790	135	900	1,170	7,470	6,255	2,925

RESINA K												
	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL LOCAL	2,430	1,845	4,140	3,915	2,970	1,575	4,050	4,545	3,285	1,530	2,160	1,260
TOTAL EXPORTACION	0	0	315	0	450	225	405	45	405	1,575	180	630

	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL AZUL LOCAL	0	45	90	45	90	45	45	45	0	45	0	0
TOTAL AZUL EXP.	0	45	45	0	0	0	0	0	90	45	45	0
TOTAL NEGRO LOCAL	0	45	45	45	45	0	45	0	90	0	0	0
TOTAL NEGRO EXP.	0	45	0	0	45	0	0	45	45	45	0	0
TOTAL ROJO LOCAL	0	90	45	0	0	90	0	45	0	0	0	0
TOTAL ROJO EXP.	45	0	0	0	0	0	0	0	0	45	0	0
VERDE1	0	0	0	0	0	0	0	0	0	0	0	0
VERDE EXP 1	0	0	0	0	0	0	0	0	0	0	0	0

	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL LOCAL	0	45	45	90	0	0	90	45	0	45	0	0
TOTAL EXPORTACION	0	0	0	0	0	0	0	0	45	0	0	0

POLIETILENO BAJA DENSIDAD												
	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL LOCAL	270	765	630	630	450	630	630	495	225	315	90	0
TOTAL EXPORTACION	90	90	0	180	180	0	45	225	585	360	360	0

POLIETILENO												
	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL LOCAL	2,340	3,690	3,780	2,970	2,475	3,195	3,375	2,250	1,260	1,305	720	0
TOTAL EXPORTACION	900	1,215	495	720	1,620	315	450	855	4,905	3,510	1,980	0

POLIACETAL NATURAL												
	Ene-04	Feb-04	Mar-04	Abr-04	May-04	Jun-04	Jul-04	Ago-04	Sep-04	Oct-04	Nov-04	Dic-04
TOTAL LOCAL	810	900	1,035	900	900	810	855	630	405	270	180	0
TOTAL EXPORTACION	180	450	90	225	450	90	225	180	1,395	1,035	495	0

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