

<HDPE>

가 !

92 9

HDPE 가 105 가, 가
(4) .
HDPE가 60 5000 30~40% , 가 ,
가
20%
가 , 9
12 HDPE 가 35 NCC
HDPE , 91 46 454 12 4781
27.1% , 12 3041 26.7%, 10 4517 22.7%,
4 1005 8.9%, 3 8519 8.4% , 91
2 3539 (5.1%), 5051 (1.1%)
92 가 가
가 7 2663 23.9% , 6 9781
23%, 5 6063 18.5%, 2 6190 8.6%, 1 7674 5.8%
가 , 91
3 7716 (12.4%), 2 3540 (7.8%)
92 24.5%(13 3266), 18.3%(9 9510),
16.5%(8 9696), 12.8%(6 9240), 11.5%(6 2573)
91 가 가 1 82 3537 6 65 1692 20.9%
, 12 46 7042 1 가 43%
92 , 6 47 6542
HDPE가 91 1 86 1302 12 60 556 30% ,
92 6 53 1660 91 12 11.4%
가 91 1 73 5733 12 47 8950 35% , 92 6 46
1030
91 1 73 8315 12 38 4597 48% , 가 가
, 92 가 , 6 39 4949

91 1 43% , 12 43 7805 , 92 6 44 3338

91 1 20~ 50% 가 , 92 91 12

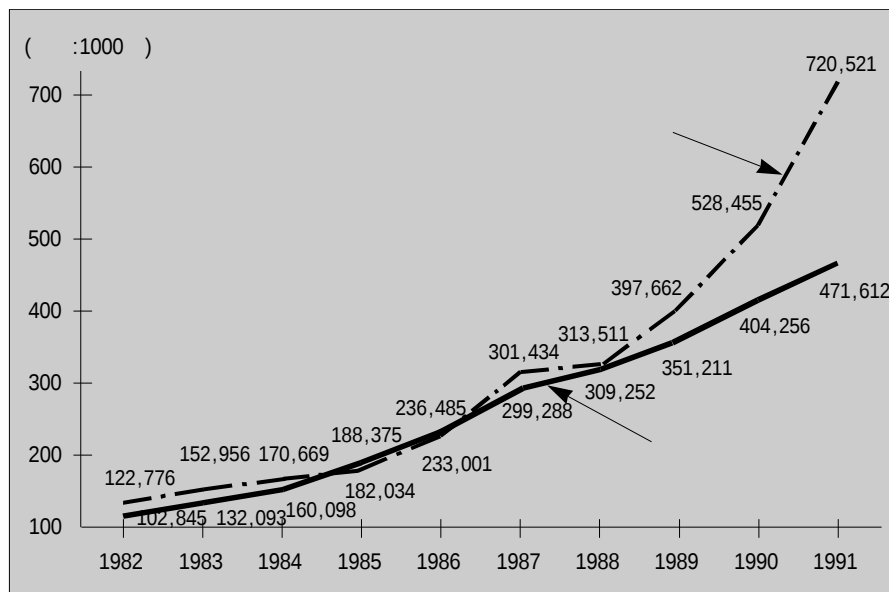
< 1> HDPE

(:)

	1984	1985	1986	1987	1988	1989	1990	1991
	135,005	147,144	180,100	213,300	271,821	345,102	495,245	696,171
	87,867	123,132	158,030	185,157	238,660	264,585	310,657	399,970
	36,567	30,353	25,533	25,997	28,902	34,066	60,389	47,292
	4,233	3,170	2,841	96	3,159	23,455	125,594	215,403
	128,667	156,655	186,383	211,250	270,721	322,106	496,640	662,665
	35,664	34,890	52,901	88,134	41,690	52,560	33,210	24,350
	39,145	54,117	56,321	63,356	81,745	87,220	89,262	100,908
	18,210	19,257	24,971	30,207	39,942	49,361	65,387	81,179
	20,589	26,135	34,706	40,400	47,276	53,896	81,840	98,359
	41,294	41,934	51,879	61,311	78,698	82,428	101,707	110,245
	4,519	10,498	13,718	15,111	18,447	25,164	32,850	54,845
	677	1,545	1,968	769	1,454	582	—	1,726
	124,434	153,484	183,563	211,154	267,562	298,651	371,046	447,262

) (.)

< 1> HDPE



91 7 7 가 54 984 가

92 6 가 49 .

9 , 46 ~48 , 92 6 45 .

, 91 가 44.3% · 44.8%, 11.7%,

25% .

92 46%, 62% 가

가 46%, 44%, 59%, 22%

91 가

92 6 9800 , 9400 , 7100 , 6000 ,

4900 , 4600 , 4000

HDPE 82 11 3617 91 69 6171 10 500% 가 , 82

10 2845 91 47 1612 358% 가 , 82 12 2776 91 72

521 91 50%

82 9159 87 8 8134 가 , 88 4 1690 , 91 2 4350

< 2> HDPE

(: , 100 , %)

			1991	M/S	1992()	M/S	1991	M/S	1992()	M/S	1991	M/S	1992()	M/S	1991	M/S	1992()	M/S	
			145,637	20.9	87,603	16.4	82,092	11.8	42,320	7.9	165,298	23.8	126,987	23.8	177,705	25.5	101,604	19.0	
			109,760	27.4	63,582	23.1	30,449	7.6	14,076	5.1	109,593	27.4	67,014	24.4	85,799	21.5	49,533	18.0	
			76,335		33,804		16,551		6,241		71,279		31,935		44,010		19,563		
			15,021	24.9	6,199	21.7	8,060	13.3	3,598	12.6	13,448	22.2	5,649	19.8	18,718	31.0	6,530	22.8	
			9,094		2,907		4,559		1,642		7,799		2,608		11,247		2,975		
			16,558	8.2	19,915	8.3	42,190	20.9	24,907	10.4	37,131	18.4	60,603	25.2	68,584	33.9	43,447	18.1	
			8,842		10,313		20,609		12,801		20,923		30,191		40,468		22,490		
			141,339	21.3	89,696	16.5	80,699	12.2	42,581	7.8	160,172	24.2	133,266	24.5	173,101	26.1	99,510	18.3	
			94,271		47,024		41,719		20,685		100,001		64,734		95,725		45,028		
				5,806		4,890		6,112		6,078		15,659		9,380		8,673		9,893	
1991				M/S	1992()	M/S	1991	M/S	1992()	M/S	1991	M/S	1992()	M/S	1991		1992()		
			61,211	8.8	44,485	8.4	49,417	7.1	66,732	12.5	14,811	2.1	64,068	12.0	696,171		533,799		
			37,563	9.4	24,211	8.8	21,765	5.4	34,501	12.6	5,041	1.3	22,101	8.0	399,970	60.4	275,018	50.6	
			21,559		11,162		11,381		16,915		2,366		9,989		243,481		129,611		
			3,442	5.7	1,979	6.9	1,774	2.9	3,215	11.2	10	—	1,439	5.0	60,473	9.1	28,609	5.3	
			2,138		1,182		847		1,498		5		664		35,689		13,476		
			14,922	7.3	20,607	8.6	18,743	9.3	31,524	13.1	4,094	2.0	39,033	16.3	202,222	30.5	240,036	44.1	
			8,032		10,620		9,231		15,701		2,100		20,188		110,205		122,304		
			55,927	8.4	46,797	8.6	42,282	6.4	69,240	12.8	9,145	1.4	62,573	11.5	662,665	100	543,663	100	
			31,729		22,964		21,459		34,114		4,471		30,841		389,375		265,391		
				6,239		3,927		7,135		4,627		5,666		7,161		55,290		45,957	

가

HDPE 가 650 가 1350

가

92 HDPE 91 18% 9%

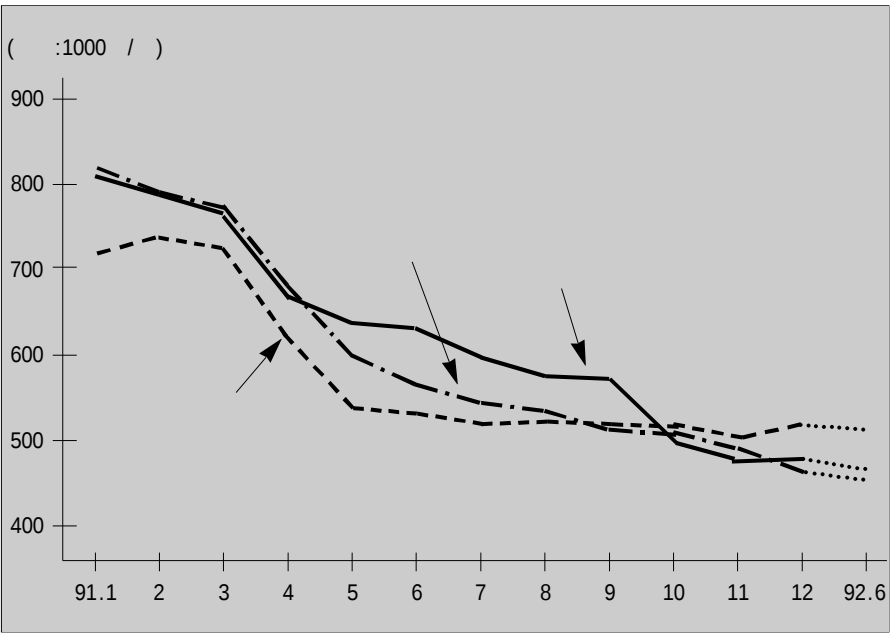
가 92 3/4 630 ~ 660 7 ~ 8 1 10

91 23.9% 가 , 22%

92 91 22.8%, 21.3%,

19.9%

< 2> HDPE 가 (1991)



HDPE 가 가

2.5% 5%

92 1

< 3> HDPE (: , %)

	1991	M/S	1992()	M/S	1991	M/S	1992()	M/S	1991	M/S	1992()	M/S	1991	M/S	1992()	M/S
가	37,242	36.9	21,905	33.9	118	0.1	188	0.3	25,872	25.6	12,025	18.6	22,009	21.8	8,897	13.8
	7,481	9.2	6,460	12.6	15,467	19.0	5,624	10.9	22,185	27.3	12,306	24.0	15,186	18.7	6,420	12.5
	40,977	41.7	19,953	33.1	4,377	4.5	2,203	3.7	11,282	11.5	4,341	7.2	29,423	29.9	16,320	27.1
	22,681	20.5	10,636	15.4	13,260	12.0	7,028	10.2	37,239	33.7	25,813	37.3	29,254	26.8	13,632	19.7
	16,314	29.7	10,827	24.9	4,002	7.3	1,648	3.8	21,814	39.8	15,934	36.7	8,645	15.8	5,137	11.8
	86	0.7	0	0	1,285	9.8	983	6.7	4,649	35.6	2,244	15.3			5,657	38.4
	124,781	27.1	69,781	23.0	38,519	8.4	17,674	5.8	123,041	26.7	72,663	23.9	104,517	22.7	56,063	18.5
	1991	M/S	1992()	M/S	1991	M/S	1992()	M/S	1991	M/S	1992()	M/S	1991		1992()	
가	7,763	7.7	5,443	8.4	7,527	7.5	15,222	23.6	377	0.4	940	1.4	100,908	21.9	64,620	21.3
	12,459	15.4	7,825	15.2	6,653	8.2	6,283	12.2	1,748	2.2	6,460	12.6	81,179	17.6	51,378	16.9
	5,158	5.2	3,685	6.1	4,931	5.0	8,592	14.2	2,211	2.2	5,176	8.6	98,359	21.4	60,270	19.9
	3,860	3.5	1,240	1.8	3,881	3.5	6,726	9.7	70	—	4,119	5.9	110,245	23.9	69,194	22.8
	3,134	5.7	2,434	5.6	338	0.6	802	1.9	598	1.1	6,665	15.3	54,845	11.9	43,447	14.3
	6,992	53.5	5,563	37.8	51	0.4	91	0.6	0	0	180	1.2	13,063	2.9	14,718	4.8
	1,639				158				47				1,844	0.4		
	41,005	8.9	26,190	8.6	23,539	5.1	37,716	12.4	5,051	1.1	23,540	7.8	460,454	100	303,627	100

가 가 가 20% ,

< 4> HDPE 가 (1991) (: /)

		1	2	3	4	5	6	7	8	9	10	11	12	1992.6
		823,537	822,538	792,922	708,623	671,913	651,692	608,197	591,688	584,129	528,942	507,008	467,042	476,542
		826,251	824,910	776,662	685,236	607,447	579,809	540,685	537,433	521,212	509,291	466,741	462,394	461,675
		—	805,478	800,999	631,173	569,656	514,444	515,984	526,079	529,638	535,494	522,536	546,736	498,177
		861,302	879,395	832,706	739,150	713,421	697,067	655,046	640,100	610,987	575,716	534,393	600,556	531,660
		823,973	821,267	779,429	681,608	604,044	574,646	557,806	533,489	516,872	471,369	485,190	465,000	468,947
		788,461	831,776	800,000	560,484	527,810	530,635	543,074	530,811	523,941	540,179	510,372	536,481	517,851
		735,733	739,653	734,487	624,150	577,296	603,348	567,310	537,904	556,858	463,318	464,721	478,950	461,030
		820,755	675,900	736,559	663,677	597,734	543,353	615,384	585,526	539,007	557,554	600,000	601,083	597,271
		—	—	629,423	556,346	562,893	527,164	532,609	557,670	532,810	562,500	507,401	506,112	515,359
		738,315	660,258	618,988	559,397	527,525	515,416	515,927	491,306	490,878	370,189	375,541	384,597	394,949
		795,986	799,492	741,690	673,349	593,318	548,059	531,136	529,308	515,834	506,699	474,066	453,760	455,590
		734,019	712,796	691,120	635,609	586,164	568,561	535,903	538,569	554,443	540,960	526,423	542,115	517,642
		771,223	792,757	762,599	659,912	626,257	612,878	567,652	546,377	522,810	481,016	453,591	437,805	443,338
		792,683	803,571	762,749	673,870	575,701	543,092	521,668	516,959	505,600	484,150	471,739	446,927	456,365
		633,391	645,695	666,372	618,622	411,629	483,294	482,073	475,546	477,631	479,816	483,124	461,237	513,952
								540,984	579,600	600,942	527,058	497,988	495,442	490,276
								—	500,000	509,881	498,901	468,813	448,940	465,941
								—	480,000	511,386	498,660	432,048	523,063	498,065
										466,666	458,430	482,504	464,638	451,970
										—	—	—	500,000	461,431
										—	509,804	510,426	464,638	517,203

가

HDPE 93 50 , 94 55 , 95 60 , 93 75 ,
 94 80 , 95 85 ,
 92 1~7 HDPE 5643 1000 1 5901 35%
 92 (1~7) 373% 가
 HDPE 92 (1~7) 9428 (1243 8000) 91 1 5405 (2224 2000)
 39.1%(44%)

< 5> HDPE (:)

	1990			1991			1992(1~5)		
	495,245	23,210	125,594	696,171	24,350	215,403	533,799	8,254	240,036
	1,102,814	67,622	147,938	1,151,496	72,592	140,081	473,427	31,661	70,556
	167,554	58,924	6,788	148,454	111,931	2,765	65,363	51,861	865

) 92 (1~6) LDPE

< 7> HDPE (:1000)

	1990	1991	1992	1993	1994	1995
	400	450	475	500	550	600
	600	650	700	750	800	850
	200	200	225	250	250	250

HDPE , 90 110 2814 14 7938 , 91
 . 92
 , 91 14 8454 , 11 1931

< 6> HDPE (1991)

(: , 100 / : , 1000)

	1	2	3	4	5	6	7	8	9	10	11	12	
	50,546	48,472	47,999	46,196	40,296	48,126	56,320	66,549	68,834	61,042	74,697	87,094	696,171
	39,133	22,263	23,598	28,274	31,376	32,934	31,185	33,613	33,241	40,648	43,462	40,243	399,970
	31,695	17,659	17,917	18,955	19,942	20,606	18,505	19,317	18,861	20,022	20,701	19,301	243,481
	5,128	3,485	3,753	4,886	5,097	4,866	6,109	5,321	5,031	4,984	5,728	6,085	60,473
	4,156	2,777	2,853	3,307	3,046	2,727	3,299	2,836	2,598	2,473	2,750	2,867	35,689
	4,688	6,959	9,412	11,124	10,864	20,164	13,210	19,580	22,893	18,784	25,138	39,406	202,222
	3,340	5,024	6,746	6,966	5,782	10,699	6,809	10,271	11,953	9,724	12,476	20,415	110,205
	48,949	32,707	36,763	44,284	47,337	57,964	50,504	58,514	61,165	64,416	74,328	85,734	662,665
	39,191	25,460	27,516	29,228	28,770	34,032	28,613	32,424	33,412	32,219	35,927	42,583	389,375
	31,049	46,514	57,749	59,445	52,101	41,994	47,810	56,081	63,101	59,466	60,049	55,290	
	5,066	8,860	9,515	13,337	14,368	19,721	13,724	22,529	24,957	18,429	29,878	35,019	215,403
	4,886	8,941	9,612	11,626	10,736	14,660	9,923	16,362	17,848	12,954	21,131	24,643	163,322
	2,534	2,855	2,285	2,222	1,887	2,284	1,772	1,678	2,071	1,482	1,626	1,654	24,350
	3,699	3,994	3,363	3,230	2,710	3,111	2,568	2,396	2,711	1,999	2,184	2,320	34,285
가	46,417	26,702	29,533	33,169	34,856	40,527	38,552	37,663	38,279	47,469	46,076	52,369	471,612
	44,006	25,548	27,253	32,982	36,266	37,671	37,216	38,728	38,252	45,413	49,100	46,164	458,599
	4,688	6,959	9,412	11,124	10,864	20,164	13,210	19,580	22,893	18,784	25,138	39,406	202,222
	255	200	98	178	207	129	78	206	20	219	90	164	1,844
	48,949	32,707	36,763	44,284	47,337	57,964	50,504	58,514	61,165	64,416	74,328	85,734	662,665

QM(Qual-ity Mangement)

가 가 가 , 가
 가 가

< 1992/11/1>