

< : >

가 . “ ”

89~91 3 가 2 5000 .

91

가가

90

96

6

가 . 가 . LPG Olefin BTX

가

가

Up

Down

가

NCC(Naphtha Cracking Center)

Complex

1968 3 ,

10 (76 5)

NCC가 , 가

4 7

2000 ()

가 , NCC LDPE(5), VCM(6), AN(5 2000), PP(3),

(8 4000), (1 3000), SBR(2 5000), 9

가

, 76 11

35

LDPE(10),

VCM(15), EDC(28 6000), HDPE(7), PP(8), EG(8), (5), BR(2

5000), (21), 가 (23) 3 80 1 ,

4870

TPA · SM · P-Xylene · Phenol · Aceton · Octhanol · ABS 2~3

73 80

1,2

가

, 83

가 Full가

가

Complex가

2

가

Complex

2

5000

(

1

3000

.

1

2000

)

78 5000

< 1 >

< 1> 91

(: ,)

	35, 17.5, 13 SM 10, EG 10, 5.7, LDPE 10 LLDPE 6, HDPE 10, PP 17	91.10	12,000
	40, 18, 6 14, SM 20, EO/G 8, HDPE 12 LDPE 10, PP 18, EVA 3	91.6	13,000
	38.5, 19.4, 4.7 RPG 22	91.7	5,000
	PO 10, SM 22	91.3	3,000
	CA 13.4, EDC 12.1, VCM 15.1	91.7	1,200
	MIBK 1.2, B-A 2.5, Epoxy Resin 8.5	91.12	920
	PA 1, ABS 1.3	91.9	400

< 2>

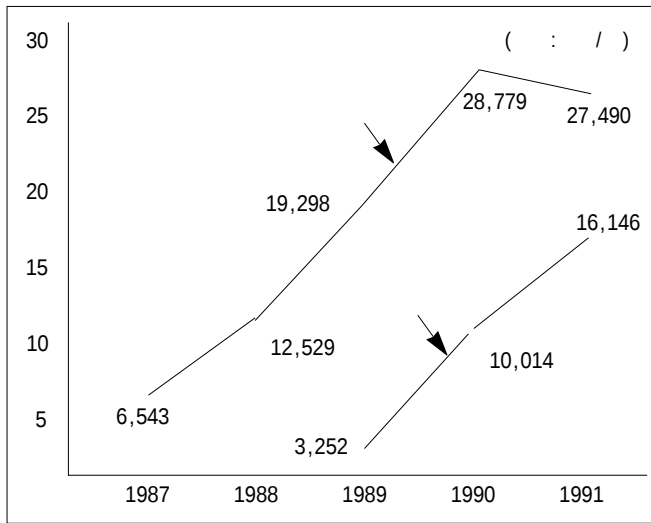
(:1000 /)

1964	35	-	-	-	-	35
1966	35	-	-	-	5	40
1967	55	-	-	-	5	60
1968	115	-	-	-	5	120
1969	115	60	-	-	5	180
1970	115	100	-	-	5	220
1971	115	100	50	-	5	270
1972	175	160	60	-	5	400
1973	215	160	60	-	5	440
1974	280	230	60	-	10	580
1978	280	230	60	60	10	640
1980	280	380	60	60	10	790
1989	280	380	60	60	60	840
1991	375	380	100	160	60	1,075
1992	*(430)	380	160	160	60	1,190

() * 5 5000B/D

()
, 62 ()가 , 64 3 5000
가 가 , 91 107 5000 .< 2
>
87 (89) , 6543
(100%) .< 1.2 >
2095 (32%)
NCC PMMA 1 Acrylic Acid 3
5000 , MA 4000 , Ethyl Acetate 1 5000 , EP EPR 2
88 , 1 2529 , 가
Up-Down Stream

< 1>



가
가
가
()가
91.4% 가
88
40), (25
HDPE 12), (PP 16 5000
(PS 7 5000), (PS 11 5000 · ABS 3), SKI(TPA · DMT 26),
(PPG 2 7000) 가
89 88 61.5% 가 가 1 9298 NCC
90
35), (25) NCC
가
2 , HDPE(5 12 12
4), LDPE(10 8 8), PP(10 4 5000
)

Complex
90
90 91
가
2~3

2 2 8000
91
35
TPA(20 15) 가 90
가
90 가 6
10
가 200%

92 , Revamping

< 3> Revamping Debottlenecking 가

(:)

				가
Ethylene		350,000		80
		155,000		72
Propylene		293,000		72
		335,000		80
Benzene		266,000		70
Toluene		360,000		70
M-Xylene		79,000		80
		372,000		70
O-Xylene		60,000		80
P-Xylene		160,000		80
Butadiene		105,000		80
		97,000		73
C ₄		226,000		80
SM		110,000		78
EDC		286,000		80
VCM		150,000		80
		(60,000)	()	(72)
PVC		290,000		77
LDPE		60,000		72
		(170,000)	()	(80)
HDPE		180,000		80
PP		350,000		72
		190,000		80
PS		250,000		73
		157,000		81
ABS		170,000		78
		60,000		73
TPA		600,000		80
EO		72,000		80
EG		80,000		80
SBR-Latex		20,000		83
AN		52,000		72
Z-Ethyl Hexanol		100,000		82
Butanol		31,000		82
MA		17,000		76
PA		100,000		72
TDI		20,000		81
Cyclohexane		140,000		74
Caprolactam		80,000		74
Alkyl Benzene		160,000		73
Phenol		30,000		80
Acetone		18,000		80
Ethanol		30,000		74
Acetaldehyde		24,000		74

MTBE		30,000 30,000 30,000 — —	92 95 95 — —	— — — " "
RD ()		1,700(2,200)	92	Debottlenecking
SrCO ₃ ()		—	—	Up-Grade
		3,000	92.4/4	70
r-Fe ₂ O ₃ () CO-Fe ₂ O ₃ Ba-Fe ₂ O ₃		500/D — —	— — —	 " "
FeSO ₄ +7H ₂ O		—	—	
MDI		40,000 —	— —	Up-Grade
Caprolactam		70,000	93	
()		(30,000) 60,000(25,000) 50,000(50,000) —	— 94 94~96 —	 8,350 7,600
UBR EVA PPG		150,000Set 10,000 6,000	95 — —	700 92
MMA PMMA Polymer PVA	D C	20,000 50,000 50,000 40,000 36,000 20,000 — 30,000	— — — — — — — —	 " " 93 " 가
Cs PVC Display Phosphor VAE Oxalcohol		10,000 6,000 100 30,000 100,000 50,000~100,000	— 92. 4/4 — — — —	92 1 139 130 (ZNS) 1 200 가
POM		10,000	94. 2/4	360
EOA		— — — 1,100 24,000	— — 93 93 92. 4/4	 " 220 /20 49 40
	Betz Korea H A			

PPS	S K I	3,000	—	3
Gaseous Oxygen/ Nitrogen		165,000	—	350
Alcohol()	AGAPE Chemical	20,000	93. 4/4	
		200,000	94	1,000 (3,000/CFC 30,000)
PC		20,000	93	
	K E P	—	—	.
		—	—	
EP Rubber	E P	40,000	93	가
PET Chip	S K I	30,000	93. 1/4	
가		57,000	93. 2/4	367
		50,000	"	
VAM		150,000	—	2
PTFE		—	—	
ABS		100,000	95	EP
LDPE		40,000	—	
HDPE		80,000	—	500
PP		100,000	—	/93
PS		30,000	—	/ 20,000
		150,000	—	
		30,000	—	
TPA		200,000	—	
SBR		40,000	—	
BR		30,000	—	
		150,000	—	
AN-Monomer		90,000	—	
SBR/BR		30,000	—	
		30,000	—	
PP		120,000	—	
PVC		10,000	—	
BTX		120,000	—	
LDPE		100,000	—	
PS		100,000	—	
PVC		50,000	—	
ABS		45,000	—	

89~91 3 ,
35 (70) 12
96 .

90

가

가

Revamping Debottlenecking

가

< 3 >

BTX

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500
93
2 2 가
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,
, Product Item , Batch 가
가 50 가
가 가
90 가
가
가
< 1992/2/15>