

< : AA >

AA 15

BP

90 TPA(Terephthalic Acid) , (Acetic Acid)

가

90 7 2700 54.7% 가 가

50% TPA , 90 ,
63 SKI 16 , 20 , 15

가
TPA 가 88 2 5000 (64.3%) 89 3 1000
(65.8%), 90 5 5700 (76.6%), 91 7 5000 (78.1%) 가

89 580 VAM(Vinyl Acetate Monomer) 38%, Cellulose Acetate
17%, Acetate Esters 14%, TPA Solvent 10%, Mono chloroacetic 5%, Acetic Anhydride 4%,
12%

< 1>

(: , %)

		84	85	86	87	88	89	90		90/89
		5,300	4,600	3,500	700	600	600	—		
		7,900	8,400	14,300	24,800	38,300	46,500	76,712		
		13,200	13,000	17,800	25,500	38,900	47,100	72,700		54.4
	T P A	7,900	7,900	7,900	10,400	25,000	31,000	55,700	76.6	79.7
		3,400	3,600	5,000	6,100	7,600	8,100			
		1,900	1,500	4,900	9,000	6,300	8,000	17,000	23.4	5.6
		13,200	13,000	17,800	25,500	38,900	47,100			

,
89 TPA 65.8%, 17.2%, 17.0%

49%, BP 51% BP () 91 11
가

18

VAM , 18

BP

BP 49:51 BP가 , , 가 , , 90 TPA 가 13%, 가 9% (90 7 7000) (5) , 90 AA AA , 89 4 7100 29% , 90 7 2700 54.7%

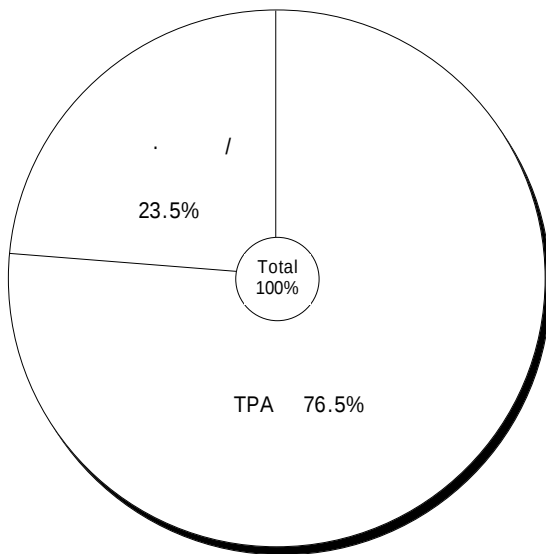
< 2> AA

(: , %)

	1988	1989	1990	1991	1992
T P A	25,000(64.3)	31,000(65.8)	55,700(76.6)	75,000(78.1)	78,100(76.5)
)	13,900(35.7)	8,100(17.2)	) 17,000(23.4)	21,000(21.9)	24,000(23.5)
		8,000(17.0)			
		47,100(100)			

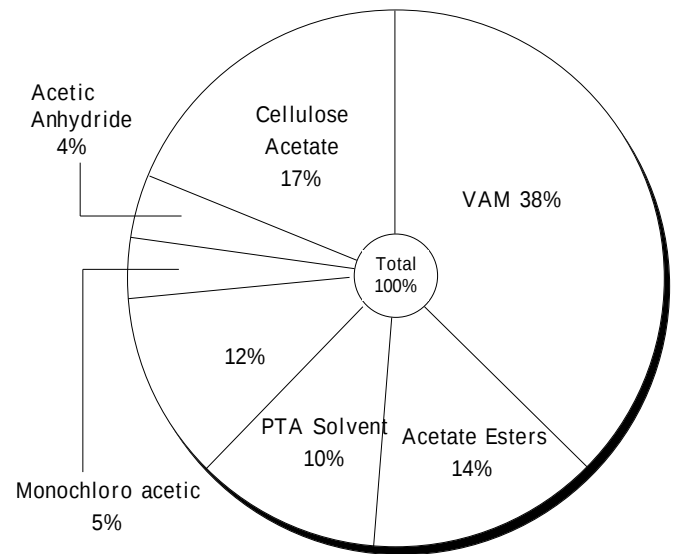
< 1> AA

()



< 2> AA

()



TPA

, Quantum · Celanese

가 가 , 3 가 87 , 91 11 , 92 7 2000 1 14 BP 25% BP 2 ICI Tai-wan TPA (35) 가 6 AA

		1988	1989	1990
Ethylene	Vinyl Acetate Monomer(VAM)	25,090	28,940	33,400
	Poly Vinyl Alcohol(PVA)		17,800	19,000
	Ethylene Vinyl Acetate(EVA)		59,000	
Ethanol	Ethyl Acetate	2,597	4,192	3,620
Cl ²	Chloroacetic Acid	1,220	1,060	1,852
Butanol	Butyl Acetate	8,090	10,440	
	Isobutyl Acetate	1,000	630	1,202
Na ₂ CO ₃	Sodium Acetate	1,210	1,200	1,194
Ketene	Acetic Anhydride	1,574	1,150	1,181
	Cellulose Acetate			25,000
Ethylene oxide +Ethanol	Ethyleneglycol Monoethyl Ether Acetate	1,690	2,830	3,004

75% 4 TPA (136)

Quantum Hoechst Celanese

가 88 546 89 487 , 90 448

가 93

, 92 가 450 , 93 490 , 94 88 가

AA가 5 CIF 590~610

가 CIF 400~420

가 1/4 AA가 20 가

PVA(Poly Vinyl Al-cohol) 1 7000

가

PVA(2) 가 PVA 가

BP 가

90 가

TPA 92 7 8100

4.1% 가 가 10 2000 90

6.4%

가 TPA 가

BP 4 15

BP가 VAM

15

VAM 90 3 3400 2 8400 (85.0%),

EVA(EthyleneVinyl Ace-tate Copolymer) 5000 (15%)

				1986	1990	
	Rhone-Poulenc	Pardies		270	300	MC
	BASF	Ludwigshafen		50	50	MC
	Hoechst	Frankfurt		140	140	AO
	Hoechst	Knapsack		80	80	AO
	Huls	Marl		40	40	AO
	Wacker-Chemie	Burghausen		80	80	AO
	Montedipe	Porto Marghera		65	65	AO
	Lonza	Visp	CH	30	30	AO
	BP Chemicals	Hull		200	210	naphtha
				180	225	MC
				—	120-200	MC
				1,135	1,340-1,420	
	VEB C.W. Buna	Schkopau		150	150	AO
	State Company	Plock		60	60	AO
	State Company	Craiova		50	50	AO
	State Company	Novgorod		25	25	AO
		Severodonetsk		150	150	MC
		Yerevan		35	35	Naphtha
				200	200	AO
	State Company	Duslo Sala		70	70	AO
	Metanolsko sircetni					
	Kompleks	Kikinda		—	100	MC
				740	840	
	Celanese Canada	Clover Bar, Al		65	65	BO
	Eastman Chemical	Kingsport, TN		285	285	AO
	Hoechst-Celanese	Clear Lake, TX		415	475	MC
	Hoechst-Celanese	Pampa, TX		250	250	BO
	Quantum Chemical	Deer Park, TX		272	410	MC
	Sterling Chemicals	Texas City, TX		222	270	MC
	Celanese Mexicana	Celaya		63	63	AO
	Celanese Mexicana	La Cangrejera		108	115	AO
	Rhone-Poulenc	Paulinia		70	70	AO
	COPERBO	Cabo		—	60	AO
	Oxiquim	Vina del Mar		14	14	AO
	Atanor	Rio Tercero		5	5	AO
				1,769	2,082	
	Daicel	Ohtake		12	12	NO
	Kyodo Sakusan	Himeji		225	260	MC
	Nippon Gohsei	Mizushima		148	148	AO
	Showa Acetyl Chem	Oita		130	130	AO
				515	550	
	CPDC	Kaohsiung		60	60	MC
	Lee chang Yung	Kaohsiung		40	40	AO
	Several Plants			250	320	AO
				350	420	
				4,509	5,177	

1 5000 PVA(Poly Vinyl Alcohol) 가 3
VAM , 3 , 3 EVA
3 EVA 92 , 가 VAM 가 1
5000
가 Air Products 1 5000 VAE(Vinyl Acetate-Ethylene
Emulsion) 92 가 93 가 1
VAM 91 5 7500 , 92 9 4000 63.5%
VAM PVA · VAE · EVA · Ethyl Acetate · Chloroacetic
Acid · Acetic Anhydride · Cellulose Acetate · Sodium Acetate 가 , PVA · EVA · Ethyl
Acetate
가 ,
PVA 가 17 5000 가 가 ,
VAE 6700 , 가 92
1 5000
EVA 87 3 가 ,
5 9000 3
가 , 3 92 가
Ethyl Acetate 1 2000 1 5000 가 ,

< 5> 가 (84-89-94) (:1000 /)

VAM	84	348	670	32	42.5	21	308	56	-
	89	380	818	37	47	50	339	56	-
Cellulose Acetates	84	105	255	16	8	7	65	-	-
	89	120	290	18	9	9	62	-	-
Acetic anhydride	84	127	100	5	3	6	15	-	-
	89	152	100	13	3	6	15	-	-
Solvent esters	84	181	143	2	7	30	31	10	-
	89	205	153	-	7	32	33	19	-
MCA	84	114	12	-	-	-	22	-	-
	89	124	-	-	-	-	23	-	-
PTA	84	55	105	-	20	6	40	30	12
	89	72	145	-	23	7	68	41	34
	84	141	105	3	9	10	94	10	7
	89	157	124	4	10	9	110	20	11
	84	1,071	1,390	58	90	80	575	106	19
	89	1,210	1,630	72	99	113	650	136	45
	94	1,300	1,800	75	160	125	711	200	90
(89-94)	%	1.4	2.0	1.8	10.1	2.0	1.8	8.0	14.9

Chloroacetic Acid , 89 가
1060 90 1852 가 , Acetic Anhydride Aspirin
가 1181 , Acetic Anhydride Cel-lulose Acetate
Cellulose Acetate Cigarette Filter Tow , 2 5000 SKI가

Cellulose Acetate Flake

VAM 가

580 52% Methanol Carbonylation
30% 가 Acetaldehyde oxidation
70% Methanol Carbo-nylation
580 380 75% 가
25%가
Hoechst-Celanese 가 50

BP 42 21%, 45%

75%
TPA 89 163 VAM 81 8000 (50.2%),
Cellulose Ace-tate 29 1400 (17.8%), Acetic Anhydride 9 4300 (6.1%), Solvent Esters 15 3220
(9.4%), TPA 14 5700 (8.9%), 12 3880 (7.6%)
65 VAM 52.2%, Cellulose Acetate 9.5%, Acetic Anhydride 2.3%,
Solvent Esters 5.1%, MCA 3.5%, TPA 10.5%, 16.9%
가

< 1992/2/1>