

SK geo centric SPECIALTY POLYOLEFINS

Let's innovate together



ACRYLATE COPOLYMERS

SK LOTRYL®

Ethylene-acrylate copolymers

Packaging



Engineering Plastics



Wire & Cable



	Typical Properties						
Grade	Type	Comonomer content (wt%)	Melt index (g/10 min) (190°C - 2.16 kg)	Melting point (°C)	Vicat softening temp. (°C)	Ring and ball temp. (°C)	Flexural modulus (MPa)
18MA02	EMA Autoclave	18	2	83	53	-	50
20MA08		20	8	76	46	-	20
24MA005		24	0.5	72	45	-	18
24MA02		24	2	68	49	-	18
28MA07		28	7	65	< 40	-	10
29MA03		29	3	61	< 40	175	10
28BA175	EBA Autoclave	28	175	75	40	94	23
30BA02		30	2	73	41	> 190	< 10
35BA40		35	40	66	< 40	110	< 10
35BA320		35	320	65	< 40	85	< 10
24MA02T	EMA	24	2	95	40	-	17
24MA07T		24	7	97	49	-	36
29MA03T		29	3	92	< 40	-	12
17BA07T	EBA Tubular	17	7	107	64		73
28BA175T		28	175	102	< 40	-	< 10
28BA700T		28	700	94	< 40	-	< 10
35BA40T		35	40	89	< 40	134	< 10
35BA320T		35	320	90	< 40	-	< 10
Test Method		FTIR	ASTM D1238	DSC	ASTM D1525	ASTM E28	ASTM D790
		Internal method	ISO 1133	ISO 11357	ISO 306	NF EN1238	ISO 178

MA (Methyl Acrylate), BA (Butyl Acrylate) - Grades containing the letter «T» are manufactured by tubular process.

SK LOTRYL® SPECIALTIES Seal-Peel resins and Masterbatches

Typical properties					
Bestpeel	Carrier resin	Melt index (g/10 min) (190°C - 2.16 kg)	Melting point (°C)	Vicat softening temp. (°C)	Food compliance
BESTPEEL 2008	EMA	7	79	46	FDA/EU
BESTPEEL 2407		2	69	< 40	FDA/EU
BESTPEEL 2805V	EVA	6	72	40	FDA/EU

Typical properties				
Masterbatches	Carrier resin	Anti-block	Slip agent	Soft touch
MM1288	EMA	●	●	
MM1297		●		
MM1338		●	●	
MM1339	PE	●	●	●

EVA/EVOH COPOLYMERS

SK EVATANE®

Ethylene-acrylate copolymers

Bitumen



Wire & Cable



Hot melt adhesive



Typical Properties					
Grade	VA content (wt%)	Melt index (g/10 min) (190°C - 2.16kg)	Melting point (°C)	Vicat softening temp. (°C)	Ring and ball temp. (°C)
18-150	18	150	88	43	102
18-500	18	500	86	43	94
20-20	20	20	83	46	127
24-03	24	03	80	46	183
28-03	27	03	76	41	166
28-05	28	05	72	40	160
28-25	28	25	71	< 40	120
28-40	28	40	70	< 40	106
28-150	28	150	69	< 40	95
28-420	28	420	66	< 40	84
33-45	33	45	62	< 40	107
33-400	33	400	63	< 40	84
40-55	40	55	55	< 40	97
42-60	> 41	75	48	< 40	95
Test Method	FTIR	ASTM D1238	DSC	ASTM D1525	ASTM E28
	Internal method	ISO 1133	ISO 11357-3	ISO 306	NF EN1238

SK EVASIN™

Ethylene-vinyl alcohol copolymers

(a trademark of Chang Chun Petrochemicals, based in Taipei, Taiwan)

Typical Properties							
Grade	Ethylene content (mol %)	Melt index (g/10 min)		Melting point (°C)	Crystallization point (°C)	Glass transition point (°C)	O ₂ Transmission Rate (65% RH, 20°C) (cm ³ .20µm/m ² .24hrs.atm)
		190°C-2.16 kg	210°C-2.16 kg				
EV 2951F	29	3	2.5	188	163	62	0.2
EV 3251F	32	1.7	4.01	183	159	60	0.3
EV 3251FT	32	1.9	4.3	183	155	57	0.5
EV 3851F/V	38	1.8	3.9	173	151	57	0.7
EV 4405F	44	5.5	12.0	165	146	55	1.8
EV 4451F	44	1.8		165	146	54	1.8
Test Method		ASTM D1238		DSC	DSC	DMA	ASTM D3985
		ISO 1133		ISO 11357			ISO 14663-2

F: Lubricated

V: Non lubricated

T: thermoforming

REACTIVE TERPOLYMERS



Glycidyl methacrylate-based copolymers and terpolymers

Typical Properties						
Grade	Reactive group (wt%)		Comonomer (wt%)	Melt index (g/10 min) (190°C - 2.16 kg)	Melting point (°C)	Vicat softening temp. (°C)
AX8670T	GMA Epoxide	9	VA (16)	12	87	43
AX8700		8	BA (25)	9	72	< 40
AX8750		5	BA (25)	12	72	< 40
AX8750T		5	BA (27)	15	93	> 40
AX8840		8	-	5	104	87
AX8900		8	MA (24)	6	65	< 40
AX8930		3	MA (25)	7	67	< 40

Maleic anhydride based terpolymers

Typical Properties						
Grade	Reactive group (wt%)		Comonomer (wt%)	Melt index (g/10 min) (190°C - 2.16 kg)	Melting point (°C)	Vicat softening temp. (°C)
3210	MAH High content	3.1	BA (6)	5	107	76
3410		3.1	BA (17)	5	89	47
3430		3.1	MA (15)	7	84	45
LX4110		3	EA (5)	5	105	78
4210		3.6	BA (6.5)	10	105	69
5500		2.8	EA (20)	20	80	45
6200		2.8	EA (6.5)	40	102	66
TX8030		2.8	EA (13)	3	95	65
8200		2.8	EA (6.5)	200	100	57
HX8290		2.8	EA (17.5)	70	85	< 40
4403	MAH Low content	0.3	MA (20)	8	80	45
4503		0.3	MA (20)	8	80	45
4513T		0.3	MA (24)	8	96	41
4613T		0.3	MA (24)	7	98	41
18603T		0.5	MA (29)	3.5	92	< 40
4700		1.3	EA (29)	7	65	< 40
4700T		1.3	EA (29)	7	79	< 40
9307YT		0.2	VA (14)	10.5	93	66
9318T		0.2	VA (18.5)	7	86	54
9304T		0.2	VA (25)	7.5	80	49
9305T		0.6	VA (28)	180	68	< 40
Test Method	FTIR		ASTM D1238		DSC	ASTM D1525
	Internal method		ISO 1133		ISO 11357-3	ISO 306

MAH: Maleic anhydride - GMA: Glycidyl methacrylate - MA: Methyl Acrylate - BA: Butyl Acrylate - EA: Ethyl Acrylate - VA: Vinyl Acetate

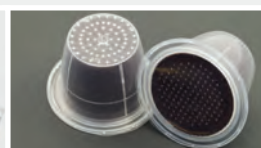
GRAFTED POLYOLEFINS

SK OREVAC®
Reactive grafted
(PE, PP, EVA, EMA) tie layers

Flexible packaging



Monomaterial packaging



Rigid packaging



			Typical Properties				
	Grade	Base polymer	Reactivity*	Melt index (g/10 min) (230°C - 2.16kg)	Melting point (°C)	Vicat softening temp. (°C)	Density
Orevac® EVA	18211	EVA	+	3.5	75	51	0.950
	18215		+++	5	70	< 40	0.940
Orevac® PE	OE850	LDPE	+++	7.5	104	89	0.915
	18302N	LLDPE	++	1.5	123	84	0.912
	18300		++	2.5	120	85	0.916
	18334		+	1.0	125	101	0.920
	18341		+++	1.5	121	95	0.918
	18362		+	2.5	123	-	0.918
	18910		+	1.5	117	80	0.950
	OE825		+++	3.0	118	100	0.913
	18342N	HDPE	+	3.5	125	110	0.930
	18507		++	5.0	128	-	0.954
Orevac® VLDPE	IM800	VLDPE	+++	0.8	46	< 40	0.866
Test method			Internal method	ASTM D1238	DSC	ASTM D1525	ASTM D1525
				ISO 1133	ISO 11357	ISO 306	ISO 1183

			Typical Properties				
	Grade	Base polymer	Reactivity*	Melt index (g/10 min) (190°C - 2.16kg)	Melting point (°C)	Vicat softening temp. (°C)	Density
Orevac® PP	18729	Homo PP	+	4.5	162	137	0.900
	18730		+	3	-	-	-
	18750		++	35	160	121	0.920
	18751		+	35	160	138	0.910
	18790		+++	45**	137	-	0.890
	CA100	Copo PP	+++	10**	167	147	0.905
	18722	Random PP	+	7	143	120	0.900
	18732		+	8	134	120	0.890
	18780		++	18	-	-	-
Test method			Internal method	ASTM D1238	DSC	ASTM D1525	ASTM D1525
				ISO 1133	ISO 11357	ISO 306	ISO 1183

* Reactivity MAH% :

+: 0.1-0.3% - ++: 0.3-0.6% - +++: 0.6-1.0% - ++++>1%

** Melt index @ 190°C, 325 g

IONOMERS / ACID COPOLYMERS



Sodium (Na) and Zinc (Zn) based ionomers.

Vacuum skin packaging



Oil/Sauce packaging



Fatty food packaging



Typical Properties						
Grade	Ion type	Melt index (g/10 min) (190°C - 2.16kg)	Density	Melting point (°C)	Vicat softening point	Process
2610	Zn	5.0	0.94	98	78	Extrusion Coating
NPD 2610S	Zn	5.2	0.94	98	78	
NPD 2750	Zn	15	0.95	91	65	
1350	Na	2.8	0.95	91	65	Film
NPD 1350T	Na	3.5	0.95	91	65	
NPD 1250	Na	0.9	0.95	92	58	
1210	Na	1.2	0.94	98	74	
Test Method		ASTM D1238	ASTM D792	Internal method	ASTM D1525	
		ISO 1133	ISO 1183	DSC	ISO 306/A	

NPD: not commercialized yet

PRIMACOR® Ethylene acrylic acid (EAA) copolymers.

Typical Properties						
Grade	AA content (wt%)	Melt index (g/10 min) (190°C - 2.16kg)	Density	Melting point (°C)	Vicat softening point	Process
1321	6.5	2.5	0.932	103	89	Film
1410	9.7	1.0	0.938	98	81	
1430	9.7	5.0	0.938	96	76	
3150	3.0	1.1	0.924	104	89	Extrusion Coating
3330	6.5	5.5	0.932	100	85	
3003	6.5	7.5	0.935	100	90	
4608	6.5	7.7	0.932	99	86	
3340	6.5	9.0	0.932	101	84	
3002	8.0	9.5	0.936	100	82	
3004	9.7	8.5	0.938	98	81	
3440	9.7	10.0	0.938	98	81	
3460	9.7	20	0.938	95	75	
5980I	20.5	300	0.958	77	42	Dispersions
NPD 4810						
Test Method		ASTM D1238	ASTM D792	Internal method	ASTM D1525	
		ISO 1133	ISO 1183	DSC	ISO 306/A	

NPD: not commercialized yet

SK Functional Polymer (SKFP) has produced specialty polyolefins for more than 50 years. Thanks to their unique combination of functionalities (epoxide, maleic anhydride, acrylate, vinyl acetate) SKFP resins have ignited innovation from the most complex food packaging composites to the newest advances in plastic circular economy. Since June 1, 2020, SKFP is a subsidiary of SKGC, a South Korean petrochemical producer with 10.2 billions USD.

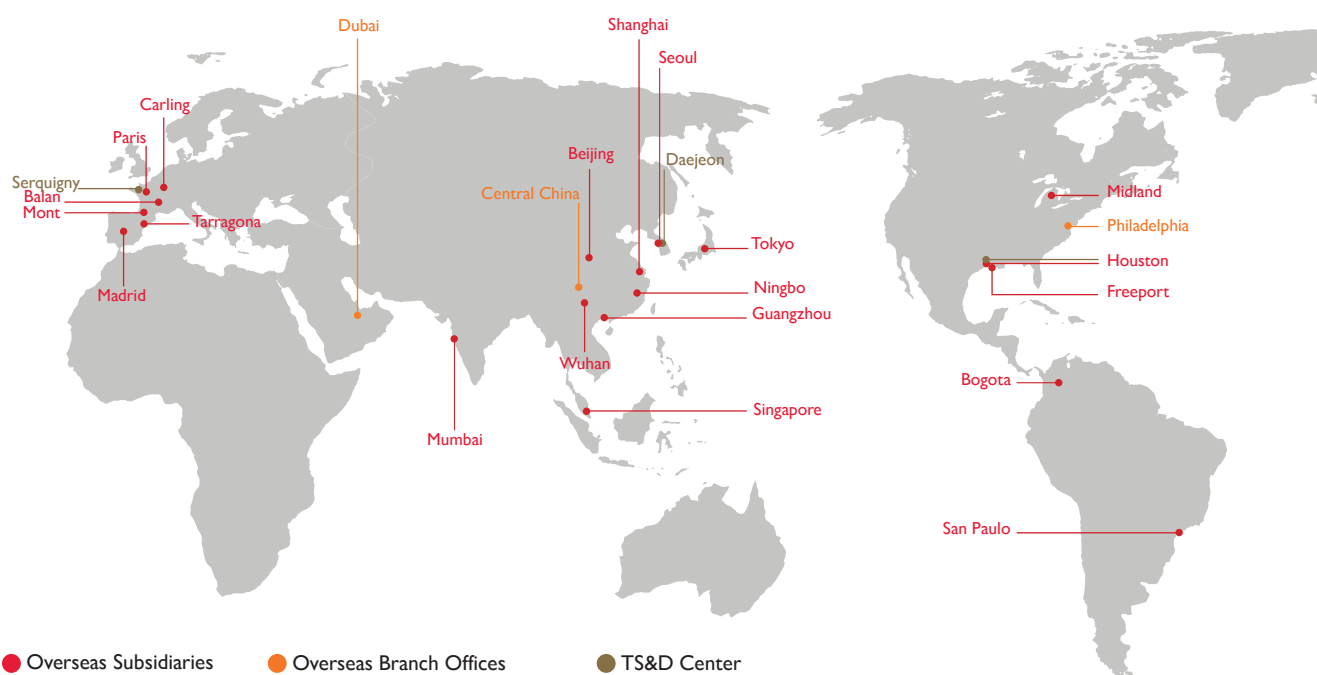
PACKAGING



SUSTAINABILITY



INDUSTRY



Disclaimer: Please consult SK Functional Polymer disclaimer regarding the use of SK FP products on www.sk-fp.com

Regulatory information: for information on regulatory compliance, consult your local representative. Read and understand the Material Safety Data Sheet (MSDS) before using these products.

sk-fp.com



SK functional polymer

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