PRIMACOR™ 1410

SK Global Chemical - Ethylene Acrylic Acid Copolymer

Sunday, November 3, 2019

General Information

Product Description

PRIMACOR™ 1410 Copolymer is an ethylene acrylic acid copolymer suitable for monolayer or coextrusion blown films.

PRIMACOR 1410 Copolymer has been specifically designed for use as a heat seal or adhesive layer in composite films.

PRIMACOR 1410 Copolymer exhibits:

- Excellent hot tack and sealability
- Excellent toughness and strength
- Excellent crack resistance
- Insensitivity to moisture
- Good optical properties

Applications:

- Speciality and skin packaging
- Multilayer films

Complies with:

- U.S. FDA 21 CFR 177.1310(a)(1)
- EU, No 10/2011

Consult the regulations for complete details.

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Additive	• Antiblock: No	• Processing Aid: No	• Slip: No
Agency Ratings	• EU No 10/2011	• FDA 21 CFR 177.1310 (a) 1	
Forms	• Pellets		
Processing Method	• Blown Film		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.940		ASTM D792
Density	0.938	g/cm³	ISO 1183
Melt Mass-Flow Rate (190°C/2.16 kg)	1.5	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.5	g/10 min	ISO 1133
Comonomer Content [2]	9.7	%	Internal Method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [3] (Yield, Compression Molded)	1220	psi	ASTM D638
Tensile Stress (Yield, Compression Molded)	1220	psi	ISO 527-2/508
Tensile Strength [3] (Break, Compression Molded)	3260	psi	ASTM D638
Tensile Stress (Break, Compression Molded)	3260	psi	ISO 527-2/508
Tensile Elongation [3] (Break, Compression Molded)	640	%	ASTM D638
Tensile Strain (Break, Compression Molded)	640	%	ISO 527-2/508

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Films	Nominal Value	Unit	Test Method
Tensile Strength - MD (Yield, 2.0 mil)	1710	psi	ASTM D882
Tensile Strength - TD (Yield, 2.0 mil)	1590	psi	ASTM D882
Tensile Stress			ISO 527-3
MD : Yield, 2.0 mil	1710	psi	
TD : Yield, 2.0 mil	1590	psi	
Tensile Strength - MD (Break, 2.0 mil)	5500	psi	ASTM D882
Tensile Strength - TD (Break, 2.0 mil)	5530	psi	ASTM D882
Tensile Stress			ISO 527-3
MD : Break, 2.0 mil	5500	psi	
TD : Break, 2.0 mil	5530	psi	
Tensile Elongation - MD (Break, 2.0 mil)	400	%	ASTM D882
Tensile Elongation - TD (Break, 2.0 mil)	470	%	ASTM D882
Tensile Elongation			ISO 527-3
MD : Break, 2.0 mil	400	%	
TD : Break, 2.0 mil	470	%	
Dart Drop Impact (2.0 mil)	580	g	ASTM D1709B
Dart Drop Impact (2.0 mil)	580	g	ISO 7765-1/B
Elmendorf Tear Strength - MD [4] (2.0 mil)	380	g	ASTM D1922
Elmendorf Tear Strength - TD [4] (2.0 mil)	510	g	ASTM D1922
Elmendorf Tear Strength [4]			ISO 6383-2
MD : 2.0 mil	380	lbf	
TD : 2.0 mil	510	lbf	

Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	178	°F	ASTM D1525
Vicat Softening Temperature	178	°F	ISO 306
Melting Temperature (DSC)	208	°F	Internal Method

Optical	Nominal Value	Unit	Test Method
Gloss (45°, 2.00 mil)	65		ASTM D2457
Haze			
2.00 mil	5.80	%	ASTM D1003
2.00 mil	5.80	%	ISO 14782

Processing Information

Extrusion Notes

Fabrication Conditions For Film:

Equipment used to process this resin should be constructed of corrosion resistant materials. Dies and adapters are recommended to be stainless steels and/or duplex chrome or nickel plated.

- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
- Screw Type: Single Flight with Maddock Mixer
- Die Gap: 40 mil (1.0 mm)
- Melt Temperature: 385°F (196°C)
- Output: 6 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5:1
- Frost Line Height: 29 in. (737 mm)

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Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Comonomer content measured by a proprietary method that has equivalent accuracy as compared to ASTM D 4094.

[3] 20 in/min

[4] Crosshead speed 20 in./min.