PRIMACOR™ 1321

Copolymer

Introduction

PRIMACOR™ 1321 Copolymer is an ethylene acrylic acid copolymer suitable for extruded blown and cast film. PRIMACOR™ 1321 Copolymer has been specifically designed for use as an adhesive layer in composite films or sealant layer in flexible packaging structures.

PRIMACOR™ 1321 Copolymer exhibits:

- Good interlayer adhesion to PE and PA
- Good optical properties
- Excellent toughness and strength
- Excellent environmental stress crack and product resistance
- Good hot-tack and sealability
- Insensitivity to moisture

Applications:

- Multilayer films
- Food packaging

Complies with:

- US. FDA 21 CFR 177.1310(a)(1)
- EU. No 10/2011

Additives:

- Antiblock: No
- Slip: No

Properties

		Nominal Value (English)	Nominal Value (SI)	Test Method
Resin Properties	Density	0.935 g/cm^3	0.935 g/cm^3	ASTM D792 ISO 1183
	Melt Index[1] (2.16 kg @190°C)	2.6 g/10min	2.6 g/10min	ASTM D1238 ISO 1133
	Comonomer Contents[2]	6.5 %	6.5 %	SK Method
	Vicat Softening Temperature	192 °F	88.9 °C	ASTM D1525 ISO 306
	Melting Temperature (DSC)	217 °F	103 °C	SK Method
Mechanical Properties	Tensile Strength at Yield[3] (Compression Molded)	1460 psi	10.0 MPa	ASTM D638 ISO 527-2/508
	Tensile Strength at Break[3] (Compression Molded)	2910 psi	20.1 MPa	ASTM D638 ISO 527-2/508
	Tensile Elongation at Break[3] (Compression Molded)	640 %	640 %	ASTM D638 ISO 527-2/508

			Nominal Value (English)	Nominal Value (SI)	Test Method
Film Properties	Film Thickness		2.0 mil	50.8 μm	ASTM D374
	Haze		3.7 %	3.7 %	ASTM D1003 ISO 14782
	Gloss (45°)		76	76	ASTM D2457
	Dart Drop Impact		410 g	410 g	ASTM D1709B ISO 7765-1/B
	Elmendorf Tear Strength	MD	270 g	270 g	ASTM D1922 ISO 6383-2
		TD	390 g	390 g	
	Tensile Strength at Yield	MD	1640 psi	11.3 MPa	ASTM D882 ISO 527-3
		TD	1620 psi	11.1 MPa	
	Tensile Strength at Break	MD	4610 psi	31.8 MPa	ASTM D882 ISO 527-3
		TD	4620 psi	31.9 MPa	
	Tensile Elongation at Break	MD	460 %	460 %	ASTM D882 ISO 527-3
		TD	510 %	510 %	

Extrusion Condition[4]

- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D; Single Flight with Maddock Mixer
- Die Gap: 40 mil (1.0 mm)
- Die Diameter: 6 in. (152.4 mm)
- Melt Temperature: 380 °F (193 °C)
- Output: 6 lb/hr/in. of Die Circumference (1.07 kg/hr/cm of Die Circumference)
- Blow-up Ratio: 2.5:1
- Frost Line Height: 29 in. (737 mm)

[1] As measured at the time of production.
[2] Comonomer content measured by a SK proprietary method that has equivalent accuracy as compared to ASTM D 4094.
[3] 20 in/min (510 mm/min)
[4] 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.

Notes
These are ***typical values*** and are ***not be construed as specifications.*** The physical properties are highly dependent on the manufacturing conditions. So customers should confirm performances by their own tests.