



Experimental XUS 60921.01

Experimental Polyethylene Resin

Overview

XUS 60921.01 Experimental Polyethylene Resin is a polyethylene resin with a fractional melt index especially designed for collation shrink film applications. The resin is formulated with post-consumer recycled Plastics, specifically designed to be used in the core layer of co-extruded films. This grade is non-food contact compliant.

Main Characteristics:

- Good stiffness-toughness balance for core layer
- Good shrink performance

The resin is not designed or intended for regulated applications including food, personal care, medical and pharmaceutical.

Additive

- Antiblock: 0 ppm
- Slip: 0 ppm
- Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.935 g/cm ³	0.935 g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	0.30 g/10 min	0.30 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	0.98 mil	25 µm	Dow Method
Film Puncture Energy	3.72 in·lb	0.420 J	ASTM D882
Film Puncture Force	4.63 lbf	20.6 N	ASTM D882
Secant Modulus			ASTM D882
1% Secant, MD	91700 psi	632 MPa	
2% Secant, MD	74000 psi	510 MPa	
1% Secant, TD	114000 psi	786 MPa	
2% Secant, TD	92100 psi	635 MPa	
Tensile Strength			ASTM D882
MD : Yield	2830 psi	19.5 MPa	
TD : Yield	3160 psi	21.8 MPa	
MD : Break	5900 psi	40.7 MPa	
TD : Break	3050 psi	21.0 MPa	
Tensile Elongation			ASTM D882
MD : Break	400 %	400 %	
TD : Break	710 %	710 %	
Elmendorf Tear Strength			ASTM D1922
MD	100 g	100 g	
TD	1100 g	1100 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Melting Temperature	264 °F	129 °C	Dow Method
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°, 0.984 mil (25.0 µm))	27	27	ASTM D2457
Haze (0.984 mil (25.0 µm))	25.2 %	25.2 %	ASTM D1003
Additional Information			
Coextruded film formulations available upon request.			
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	410 to 437 °F	210 to 225 °C	



Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 0.98-1.18 in. (25-30 mm); 25:1 L/D
- Screw Type: Collin, Single flight screw with Maddock Mixer
- Die Gap: 70 mil (1.8 mm)
- Melt Temperature: 410-437°F (210-225°C)
- Line Throughput: 40 kg/hr-m of die circumference
- Die Diameter: 50 mm
- Blow-Up Ratio: 2.5:1
- Screw Speed: 47 rpm (25 mm) & 26 rpm (30mm)
- Frost Line Height: 20 cm

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

