



AGILITY™ 2001

The Dow Chemical Company - Low Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

AGILITY™ 2001 Performance LDPE Resin is a high pressure LDPE resin offering clarity combined with high shrink tension and strength.

Main Characteristics:

- Optimum LDPE for retail shrink packaging
- Excellent combination of shrink force and sparkling optics
- Toughness for demanding applications

Complies with:

- U.S. FDA 21 CFR 177.1520(c)2.2
- Consult the regulations for complete details

General

Material Status	• Commercial: Active		
Availability	• Latin America	• North America	
Additive	• Antiblock: No	• Processing Aid: No	• Slip: No
Agency Ratings	• FDA 21 CFR 177.1520(c) 2.2		
Forms	• Pellets		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.926		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	0.40	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	2	mil	
Film Puncture Resistance (2.0 mil)	66.0	ft·lb/in ³	Internal Method
Film Toughness - MD (2.0 mil)	1140	ft·lb/in ³	ASTM D882
Film Toughness - TD (2.0 mil)	1150	ft·lb/in ³	ASTM D882
Secant Modulus - 1% Secant, MD (2.0 mil)	36300	psi	ASTM D882
Secant Modulus - 1% Secant, TD (2.0 mil)	39400	psi	ASTM D882
Tensile Strength - MD (Yield, 2.0 mil)	2240	psi	ASTM D882
Tensile Strength - TD (Yield, 2.0 mil)	2050	psi	ASTM D882
Tensile Strength - MD (Break, 2.0 mil)	4380	psi	ASTM D882
Tensile Strength - TD (Break, 2.0 mil)	3680	psi	ASTM D882
Tensile Elongation - MD (Break, 2.0 mil)	440	%	ASTM D882
Tensile Elongation - TD (Break, 2.0 mil)	600	%	ASTM D882
Dart Drop Impact (2.0 mil)	120	g	ASTM D1709A
Elmendorf Tear Strength - MD ² (2.0 mil)	280	g	ASTM D1922
Elmendorf Tear Strength - TD ² (2.0 mil)	570	g	ASTM D1922
Thermal	Nominal Value	Unit	Test Method
Melting Temperature (DSC)	235	°F	Internal Method
Optical	Nominal Value	Unit	Test Method
Gloss (45°, 2.00 mil)	91		ASTM D2457
Haze (2.00 mil)	4.80	%	ASTM D1003

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Processing Information

Extrusion	Nominal Value	Unit
Melt Temperature	448	°F

Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 2.5 in. (63.5 mm); 30:1 ratio L/D
- Screw Type: DSB II
- Die Gap: 40 mil (1.78mm)
- Melt Temperature: 448°F (231°C)
- Output: 10 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5 to 1
- Screw Speed: 50 rpm
- Frost Line Height: 25 in. (635 mm)

Notes

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

² Method B