



AGILITY™ 1000 Performance LDPE

Low Density Polyethylene Resin

Overview

AGILITY™ 1000 Performance LDPE is a high pressure LDPE resin designed specifically to run at faster output rates on blown film lines in blends with LLDPE resins while maintaining bubble stability. AGILITY™ 1000 Performance LDPE also has excellent shrink and good optics performance in blends with LLDPE resins.

Main Characteristics:

- Faster processing LDPE resin
- Designed for higher output rates in blends with LLDPE resins
- Excellent shrink

Complies with:

- U.S. FDA, 21 CFR 177.1520(c)2.2
- Canadian HPFB No Objection
- European Commission Regulation (EU) No 10/2011

Consult the regulations for complete details.

Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.920 g/cm ³	0.920 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (190°C/2.16 kg)	0.18 g/10 min	0.18 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	2.0 mil	51 µm	
Film Puncture Resistance (2.0 mil (51 µm))	73.0 ft-lb/in ³	6.04 J/cm ³	Dow Method
Secant Modulus			ASTM D882
1% Secant, MD : 2.0 mil (51 µm)	32000 psi	221 MPa	
2% Secant, MD : 2.0 mil (51 µm)	29000 psi	200 MPa	
1% Secant, TD : 2.0 mil (51 µm)	36800 psi	254 MPa	
2% Secant, TD : 2.0 mil (51 µm)	32600 psi	225 MPa	
Tensile Strength			ASTM D882
MD : Yield, 2.0 mil (51 µm)	1800 psi	12.4 MPa	
TD : Yield, 2.0 mil (51 µm)	1840 psi	12.7 MPa	
MD : Break, 2.0 mil (51 µm)	4060 psi	28.0 MPa	
TD : Break, 2.0 mil (51 µm)	3880 psi	26.8 MPa	
Tensile Elongation			ASTM D882
MD : Break, 2.0 mil (51 µm)	390 %	390 %	
TD : Break, 2.0 mil (51 µm)	560 %	560 %	
Dart Drop Impact (2.0 mil (51 µm))	270 g	270 g	ASTM D1709A
Elmendorf Tear Strength ¹			ASTM D1922
MD : 2.0 mil (51 µm)	180 g	180 g	
TD : 2.0 mil (51 µm)	200 g	200 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Melting Temperature (DSC)	228 °F	109 °C	Dow Method
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°, 2.00 mil (50.8 µm))	61	61	ASTM D2457
Clarity (2.00 mil (50.8 µm))	92.0	92.0	ASTM D1746
Haze (2.00 mil (50.8 µm))	10 %	10 %	ASTM D1003



Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 3.5 in. (88.9 mm), 30:1 L/D
- Die Gap: 30 mil (1.78mm)
- Melt Temperature: 423°F (217°C)
- Output: 10 lb/hr/in. of die circumference
- Die Diameter: 8 in.
- Blow-Up Ratio: 2.5 to 1
- Screw Speed: 45.3 rpm
- Frost Line Height: 31 in. (787 mm)

Notes

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

¹ Method B

