



AGILITY™ 1500

Low Density Polyethylene Resin

Overview

AGILITY™ 1500 Performance LDPE is a high pressure LDPE resin designed specifically for high processability and good optics neat and in blends with LLDPE resins for blown or cast films.

Complies with:

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

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 D792
Base Density ¹	0.920 g/cm ³	0.920 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	0.15 g/10 min	0.15 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	2 mil	51 µm	
Secant Modulus			ASTM D882
2% Secant, MD	33000 psi	228 MPa	
2% Secant, TD	39000 psi	269 MPa	
Tensile Strength			ASTM D882
MD : Yield	1700 psi	11.7 MPa	
TD : Yield	1700 psi	11.7 MPa	
MD : Break	3700 psi	25.5 MPa	
TD : Break	3200 psi	22.1 MPa	
Tensile Elongation			ASTM D882
MD : Break	210 %	210 %	
TD : Break	500 %	500 %	
Dart Drop Impact (2.0 mil (51 µm))	210 g	210 g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD	230 g	230 g	
TD	140 g	140 g	
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°)	36	36	ASTM D2457
Haze	19.0 %	19.0 %	ASTM D1003

Extrusion Notes

Fabrication Conditions for 2 mil monolayer blown film at 100% LDPE:

- Die Diameter: 8 in.
- Screw Type: Davis Standard Barrier II
- Die Gap: 40 mil - Melt Temperature: 445 °F
- Output: 9.9 lb/hr/in. of die circumference
- Screw Size: 3.5 in.
- Blow-Up Ratio: 2.5 to 1
- Frost Line Height: 31 in.

Notes

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

¹ Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

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