



AGILITY™ 1023 Performance LDPE

The Dow Chemical Company - Low Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

AGILITY™ 1023 Performance LDPE is used in clarity packaging with good stiffness neat and in blends with LLDPE for industrial and food packaging applications.

Main Characteristics:

- High optics for sparkling packages
- Good stiffness
- Excellent processability

Complies with:

- EU No 10/2011
- 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	• EU No 10/2011	• FDA 21 CFR 177.1520(c) 2.2	
Forms	• Pellets		

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density	0.925	g/cm ³	ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	2.0	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	1	mil	
Film Puncture Resistance (1.3 mil)	45.0	ft-lb/in ³	Internal Method
Secant Modulus - 2% Secant, MD (1.3 mil)	30000	psi	ASTM D882
Secant Modulus - 2% Secant, TD (1.3 mil)	34000	psi	ASTM D882
Tensile Strength - MD (Yield, 1.3 mil)	1960	psi	ASTM D882
Tensile Strength - TD (Yield, 1.3 mil)	1960	psi	ASTM D882
Tensile Strength - MD (Break, 1.3 mil)	3130	psi	ASTM D882
Tensile Strength - TD (Break, 1.3 mil)	2460	psi	ASTM D882
Tensile Elongation - MD (Break, 1.3 mil)	330	%	ASTM D882
Tensile Elongation - TD (Break, 1.3 mil)	550	%	ASTM D882
Dart Drop Impact (1.3 mil)	66	g	ASTM D1709A
Elmendorf Tear Strength - MD (1.3 mil)	280	g	ASTM D1922
Elmendorf Tear Strength - TD (1.3 mil)	300	g	ASTM D1922
Optical	Nominal Value	Unit	Test Method
Gloss (45°, 1.25 mil)	78		ASTM D2457
Haze (1.25 mil)	5.40	%	ASTM D1003

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Processing Information

Extrusion	Nominal Value	Unit
Melt Temperature	234	°F

Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 3.5 in. (63.5 mm); 30:1 ratio L/D
- Screw Type: DSB II
- Die Gap: 40 mil (1.02 mm)
- Melt Temperature: 413°F (212°C)
- Output: 10 lb/hr/in. of die circumference
- Die Diameter: 8 in.
- Blow-Up Ratio: 2.5 to 1
- Screw Speed: 40 rpm
- Frost Line Height: 35 in. (889 mm)
- IBC

Notes

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