



DOW™ LDPE 751A

The Dow Chemical Company - Low Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

- A high additive film resin for general packaging applications
- For cast film extrusion
- A fast blooming resin for high speed bag conversion
- Complies with U.S. FDA 21 CFR 177.1520 (c) 2.2
- Complies with Canadian HPFB No Objection (With Limitations)
- Complies with EU, No 10/2011
- Complies with Japan Hygienic Olefin and Styrene Plastics Association
- Consult the regulations for complete details.

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Antiblock: 2900 ppm • Processing Aid: No • Slip: 2640 ppm
Agency Ratings	• EU No 10/2011 • HPFB (Canada) No Objection ¹ • FDA 21 CFR 177.1520(c) 2.2 • JHOSPA Unspecified Rating
Forms	• Pellets
Processing Method	• Blown Film • Cast Film

ASTM & ISO Properties ²

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.927		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	6.4	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	1	mil	
Film Puncture Resistance (0.80 mil)	11.0	ft·lb/in ³	Internal Method
Film Toughness - MD (0.80 mil)	951	ft·lb/in ³	ASTM D882
Film Toughness - TD (0.80 mil)	1140	ft·lb/in ³	ASTM D882
Tensile Strength - MD (Yield, 0.80 mil)	2010	psi	ASTM D882
Tensile Strength - TD (Yield, 0.80 mil)	1660	psi	ASTM D882
Tensile Strength - MD (Break, 0.80 mil)	4700	psi	ASTM D882
Tensile Strength - TD (Break, 0.80 mil)	1850	psi	ASTM D882
Tensile Elongation - MD (Break, 0.80 mil)	150	%	ASTM D882
Tensile Elongation - TD (Break, 0.80 mil)	440	%	ASTM D882
Dart Drop Impact (0.80 mil)	25	g	ASTM D1709A
Elmendorf Tear Strength - MD (0.80 mil)	200	g	ASTM D1922
Elmendorf Tear Strength - TD (0.80 mil)	100	g	ASTM D1922
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	205	°F	ASTM D1525
Melting Temperature (DSC)	235	°F	Internal Method
Optical	Nominal Value	Unit	Test Method
Gloss (45°, 0.800 mil)	80		ASTM D2457
Haze (0.800 mil)	4.40	%	ASTM D1003

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Processing Information

Extrusion Notes

Fabrication Conditions For Cast Film:

- Screw A, Size: 2 in. (51 mm); 30:1 L/D
 - Melt Temperature: 449°F (232°C)
 - Screw Speed: 54 rpm
- Screw B, Size: 2.5 in. (63.5 mm); 30:1 L/D
 - Melt Temperature: 449°F (232°C)
 - Screw Speed: 36 rpm
- Screw C, Size: 2.5 in. (63.5 mm); 30:1 L/D
 - Melt Temperature: 450°F (232°C)
 - Screw Speed: 38 rpm
- Screw D, Size: 2.5 in. (63.5 mm); 30:1 L/D
 - Melt Temperature: 450°F (232°C)
 - Screw Speed: 37 rpm
- Screw E, Size: 2 in. (51 mm); 30:1 L/D
 - Melt Temperature: 449°F (232°C)
 - Screw Speed: 43 rpm
- Screw Type: DSB II
- Die Gap: 25 mil (0.6 mm)
- Chill Roll Temperature: 70°F (21°C)
- Line Speed: 600 fpm (183 m/min)

Notes

¹ With limitations

² Typical properties: these are not to be construed as specifications.