



DOW™ LDPE 748I

The Dow Chemical Company - Low Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

- A low density polyethylene for stretching/cling film applications
- Complies with U.S. FDA 21 CFR 177.1520 (c) 2.1
- Complies with Canadian HPFB No Objection (With Limitations)
- 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) 2.1	• HPFB (Canada) No Objection ¹	
Forms	• Pellets		
Processing Method	• Blown Film		

ASTM & ISO Properties ²

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.923		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	7.0	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	1	mil	
Film Puncture Resistance (1.0 mil)	32.0	ft-lb/in ³	Internal Method
Film Toughness - MD (1.0 mil)	2220	ft-lb/in ³	ASTM D882
Film Toughness - TD (1.0 mil)	1880	ft-lb/in ³	ASTM D882
Tensile Strength - MD (Yield, 1.0 mil)	1540	psi	ASTM D882
Tensile Strength - TD (Yield, 1.0 mil)	1450	psi	ASTM D882
Tensile Strength - MD (Break, 1.0 mil)	3930	psi	ASTM D882
Tensile Strength - TD (Break, 1.0 mil)	2540	psi	ASTM D882
Tensile Elongation - MD (Break, 1.0 mil)	510	%	ASTM D882
Tensile Elongation - TD (Break, 1.0 mil)	640	%	ASTM D882
Dart Drop Impact (1.0 mil)	43	g	ASTM D1709A
Elmendorf Tear Strength - MD (1.0 mil)	190	g	ASTM D1922
Elmendorf Tear Strength - TD (1.0 mil)	260	g	ASTM D1922
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	192	°F	ASTM D1525
Melting Temperature (DSC)	230	°F	Internal Method
Optical	Nominal Value	Unit	Test Method
Gloss (45°, 1.00 mil)	92		ASTM D2457
Haze (1.00 mil)	1.10	%	ASTM D1003

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Processing Information

Extrusion Notes

Fabrication Conditions For Cast Film:

- Screw A: Size: 2.0 in. (51 mm); 30:1 L/D
 - Melt Temperature: 498°F (259°C)
 - Screw Speed: 47 rpm
- Screw B: Size: 2.5 in. (63.5 mm); 30:1 L/D
 - Melt Temperature: 500°F (260°C)
 - Screw Speed: 31 rpm
- Screw C: Size: 2.5 in. (63.5 mm); 30:1 L/D
 - Melt Temperature: 499°F (260°C)
 - Screw Speed: 33 rpm
- Screw D: Size: 2.5 in. (63.5 mm); 30:1 L/D
 - Melt Temperature: 500°F (260°C)
 - Screw Speed: 33 rpm
- Screw E: Size: 2.0 in. (51 mm); 30:1 L/D
 - Melt Temperature: 498°F (259°C)
 - Screw Speed: 37 rpm
- Screw Type: DSB II
- Die Gap: 25 mil (0.025 mm)
- Chill Roll Temperature: 70 °F (21 °C)
- Melt Temperature: 500 °F (260 °C)
- Output: 345 lb/hr
- Line Speed: 400 fpm (122 m/min)

Notes

¹ With limitations

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