



DOWLEX™ 2070G

The Dow Chemical Company - Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

- Linear Low Density Polyethylene
- High strength in food packaging applications
- Good processability at narrow die gaps

Complies with:

- U.S. FDA 21 CFR 177.1520 (c) 3.2a
- Canadian HPFB No Objection (With Limitations)
- EU, No 10/2011

Consult the regulations for complete details.

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Antiblock: 2500 ppm • Processing Aid: Yes • Slip: 1000 ppm
Agency Ratings	• DMF Unspecified Rating • FDA 21 CFR 177.1520(c) 3.2a • EU No 10/2011 • HPFB (Canada) No Objection ¹
Forms	• Pellets
Processing Method	• Blown Film

ASTM & ISO Properties ²

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.924		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	1.0	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Puncture Resistance			Internal Method
0.80 mil	105	ft-lb/in ³	
2.0 mil	70.0	ft-lb/in ³	
Film Toughness - MD			ASTM D882
0.80 mil	923	ft-lb/in ³	
2.0 mil	1200	ft-lb/in ³	
Film Toughness - TD			ASTM D882
0.80 mil	1090	ft-lb/in ³	
2.0 mil	1170	ft-lb/in ³	
Secant Modulus - 2% Secant, MD			ASTM D882
0.80 mil	26600	psi	
2.0 mil	27900	psi	
Secant Modulus - 2% Secant, TD			ASTM D882
0.80 mil	30600	psi	
2.0 mil	33100	psi	
Tensile Strength - MD			ASTM D882
Yield, 0.80 mil	1550	psi	
Yield, 2.0 mil	1520	psi	

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Films	Nominal Value	Unit	Test Method
Tensile Strength - TD			ASTM D882
Yield, 0.80 mil	1650	psi	
Yield, 2.0 mil	1690	psi	
Tensile Strength - MD			ASTM D882
Break, 0.80 mil	5510	psi	
Break, 2.0 mil	5170	psi	
Tensile Strength - TD			ASTM D882
Break, 0.80 mil	4060	psi	
Break, 2.0 mil	4220	psi	
Tensile Elongation - MD			ASTM D882
Break, 0.80 mil	440	%	
Break, 2.0 mil	620	%	
Tensile Elongation - TD			ASTM D882
Break, 0.80 mil	650	%	
Break, 2.0 mil	680	%	
Dart Drop Impact			ASTM D1709A
0.80 mil	150	g	
2.0 mil	310	g	
Elmendorf Tear Strength - MD			ASTM D1922
0.80 mil	250	g	
2.0 mil	810	g	
Elmendorf Tear Strength - TD			ASTM D1922
0.80 mil	690	g	
2.0 mil	1200	g	
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	219	°F	ASTM D1525
Melting Temperature (DSC)	253	°F	Internal Method
Optical	Nominal Value	Unit	Test Method
Gloss			ASTM D2457
45°, 0.800 mil	56		
45°, 2.00 mil	65		
Haze			ASTM D1003
0.800 mil	11.0	%	
2.00 mil	12.0	%	

Processing Information

Extrusion	Nominal Value	Unit
Melt Temperature	425	°F

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Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 2.5 in. (63.5 mm); 24:1 L/D
- Screw Type: MC-4 Barrier
- Die Gap: 40 mil (1 mm)
- Melt Temperature: 425°F (218°C)
- Output: 10 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5:1
- Screw Speed: 85 rpm
- Frost Line Height: 20 in. (508 mm)
- Haul Off Speed: 190 fpm for 0.8 mil, 80 fpm for 2.0 mil

Notes

¹ With limitations

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