



DOWLEX™ 2027G

The Dow Chemical Company - Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

- Linear Medium Density Polyethylene
- For high speed, thin gauge applications
- Improved stiffness
- Complies with U.S. FDA 21 CFR 177.1520 (c) 3.2a.
- Complies with Canadian HPFB No Objection (With Limitations)
- Consult the regulations for complete details.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Latin America	• North America
Additive	• Antiblock: No	• Processing Aid: No	• Slip: No
Agency Ratings	• FDA 21 CFR 177.1520(c) 3.2a	• HPFB (Canada) No Objection ¹	
Forms	• Pellets		
Processing Method	• Cast Film		

ASTM & ISO Properties ²

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.943		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	4.0	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	1	mil	
Film Toughness - MD (1.0 mil)	1370	ft-lb/in ³	ASTM D882
Film Toughness - TD (1.0 mil)	1500	ft-lb/in ³	ASTM D882
Tensile Strength - MD (Yield, 1.0 mil)	2350	psi	ASTM D882
Tensile Strength - TD (Yield, 1.0 mil)	1560	psi	ASTM D882
Tensile Strength - MD (Break, 1.0 mil)	5660	psi	ASTM D882
Tensile Strength - TD (Break, 1.0 mil)	4060	psi	ASTM D882
Tensile Elongation - MD (Break, 1.0 mil)	580	%	ASTM D882
Tensile Elongation - TD (Break, 1.0 mil)	740	%	ASTM D882
Dart Drop Impact (1.0 mil)	43	g	ASTM D1709A
Elmendorf Tear Strength - MD (1.0 mil)	34	g	ASTM D1922
Elmendorf Tear Strength - TD (1.0 mil)	210	g	ASTM D1922
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	253	°F	ASTM D1525
Melting Temperature (DSC)	261	°F	Internal Method
Optical	Nominal Value	Unit	Test Method
Gloss (45°, 1.00 mil)	86		ASTM D2457
Haze (1.00 mil)	4.10	%	ASTM D1003

Processing Information

Extrusion	Nominal Value	Unit
Melt Temperature	529	°F

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Extrusion Notes

Fabrication Conditions For Cast Film:

- Screw Size: 3.5 in. (89 mm); 32:1 L/D
- Melt Temperature: 529°F (276°C)
- Screw Size: 2.5 in. (63.5 mm); 24:1 L/D
- Melt Temperature: 515°F (268°C)
- Chill Roll Temperature: 70°F (21°C)
- Line Speed: 500 fpm (152 m/min)

Notes

¹ With limitations

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