

DOWLEX™ 2027G

Polyethylene Resin

Overview

- 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.

Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.941 g/cm ³	0.941 g/cm ³	ASTM D792
Base Density ¹	0.941 g/cm ³	0.941 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	4.0 g/10 min	4.0 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	1.0 mil	25 µm	
Film Toughness			ASTM D882
MD : 1.0 mil (25 µm)	1370 ft-lb/in ³	113 J/cm ³	
TD : 1.0 mil (25 µm)	1500 ft-lb/in ³	124 J/cm ³	
Tensile Strength			ASTM D882
MD : Yield, 1.0 mil (25 µm)	2350 psi	16.2 MPa	
TD : Yield, 1.0 mil (25 µm)	1560 psi	10.8 MPa	
MD : Break, 1.0 mil (25 µm)	5660 psi	39.0 MPa	
TD : Break, 1.0 mil (25 µm)	4060 psi	28.0 MPa	
Tensile Elongation			ASTM D882
MD : Break, 1.0 mil (25 µm)	580 %	580 %	
TD : Break, 1.0 mil (25 µm)	740 %	740 %	
Dart Drop Impact (1.0 mil (25 µm))	43 g	43 g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD : 1.0 mil (25 µm)	34 g	34 g	
TD : 1.0 mil (25 µm)	210 g	210 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	253 °F	123 °C	ASTM D1525
Melting Temperature (DSC)	261 °F	127 °C	Dow Method
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°, 1.00 mil (25.4 µm))	86	86	ASTM D2457
Haze (1.00 mil (25.4 µm))	4.1 %	4.1 %	ASTM D1003
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	529 °F	276 °C	

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)

