



DOWLEX™ 2038.68G

Polyethylene Resin

Overview

- Linear Low Density Polyethylene
- Fast processing on narrow die gaps
- For blown film paper product overwrap applications

Complies with:

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

Consult the regulations for complete details.

Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.935 g/cm ³	0.935 g/cm ³	ASTM D792
Base Density ¹	0.935 g/cm ³	0.935 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	1.0 g/10 min	1.0 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Puncture Resistance (1.0 mil (25 µm))	93.0 ft·lb/in ³	7.69 J/cm ³	Dow Method
Film Toughness			ASTM D882
MD : 1.0 mil (25 µm)	1180 ft·lb/in ³	97.5 J/cm ³	
TD : 1.0 mil (25 µm)	1390 ft·lb/in ³	115 J/cm ³	
Secant Modulus			ASTM D882
2% Secant, MD : 1.0 mil (25 µm)	54700 psi	377 MPa	
2% Secant, TD : 1.0 mil (25 µm)	50500 psi	348 MPa	
Tensile Strength			ASTM D882
MD : Yield, 1.0 mil (25 µm)	2210 psi	15.2 MPa	
TD : Yield, 1.0 mil (25 µm)	2430 psi	16.7 MPa	
MD : Break, 1.0 mil (25 µm)	5560 psi	38.3 MPa	
TD : Break, 1.0 mil (25 µm)	4810 psi	33.1 MPa	
Tensile Elongation			ASTM D882
MD : Break, 1.0 mil (25 µm)	520 %	520 %	
TD : Break, 1.0 mil (25 µm)	660 %	660 %	
Dart Drop Impact (1.0 mil (25 µm))	110 g	110 g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD : 1.0 mil (25 µm)	71 g	71 g	
TD : 1.0 mil (25 µm)	410 g	410 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	248 °F	120 °C	ASTM D1525
Melting Temperature (DSC)	259 °F	126 °C	Dow Method
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°, 1.00 mil (25.4 µm))	58	58	ASTM D2457
Haze (1.00 mil (25.4 µm))	7.00 %	7.00 %	ASTM D1003
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	400 to 475 °F	204 to 246 °C	

Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 2.5 in. (63.5 mm); 24:1 L/D
- Screw Type: Single Flight, Double Mix
- Die Gap: 70 mil (1.8 mm)
- Melt Temperature: 400-475°F (200-250°C)
- Output: 7 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5:1
- Screw Speed: 87.3 rpm
- Frost Line Height: 23 in. (584 mm)

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

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