



DOWLEX™ 2038.68G

The Dow Chemical Company - Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

- 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.

General

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

ASTM & ISO Properties ²

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.937		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 (1.0 mil)	93.0	ft·lb/in ³	Internal Method
Film Toughness - MD (1.0 mil)	1180	ft·lb/in ³	ASTM D882
Film Toughness - TD (1.0 mil)	1390	ft·lb/in ³	ASTM D882
Secant Modulus - 2% Secant, MD (1.0 mil)	54700	psi	ASTM D882
Secant Modulus - 2% Secant, TD (1.0 mil)	50500	psi	ASTM D882
Tensile Strength - MD (Yield, 1.0 mil)	2210	psi	ASTM D882
Tensile Strength - TD (Yield, 1.0 mil)	2430	psi	ASTM D882
Tensile Strength - MD (Break, 1.0 mil)	5560	psi	ASTM D882
Tensile Strength - TD (Break, 1.0 mil)	4810	psi	ASTM D882
Tensile Elongation - MD (Break, 1.0 mil)	520	%	ASTM D882
Tensile Elongation - TD (Break, 1.0 mil)	660	%	ASTM D882
Dart Drop Impact (1.0 mil)	110	g	ASTM D1709A
Elmendorf Tear Strength - MD (1.0 mil)	71	g	ASTM D1922
Elmendorf Tear Strength - TD (1.0 mil)	410	g	ASTM D1922
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	248	°F	ASTM D1525
Melting Temperature (DSC)	259	°F	Internal Method

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Optical	Nominal Value	Unit	Test Method
Gloss (45°, 1.00 mil)	58		ASTM D2457
Haze (1.00 mil)	7.00	%	ASTM D1003

Processing Information

Extrusion	Nominal Value	Unit
Melt Temperature	400 to 475	°F

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

¹ With limitations

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