



DOWLEX™ 2036P Polyethylene Resin

Overview

- Linear Low Density Polyethylene
- Improved thermal stability for high stiffness film applications
- Complies with
 - U.S. FDA 21 CFR 177.1520 (c) 3.2a
 - Europe EU-Directive 2002/72/EC
 - Japan Hygienic Olefin and Styrene Plastics Association
 - U.S. FDA-DMF
 - HPFB (Canada), No Objection
 - Consult the regulations for complete details

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.935 g/cm ³	0.935 g/cm ³	ASTM D792
Melt Index	2.5 g/10 min	2.5 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	1.00 mil	25.4 µm	
Film Puncture Resistance			Dow Method
1.00 mil (25.4 µm)	125 ft-lb/in ³	10.3 J/cm ³	
Film Toughness			ASTM D882
MD: 1.00 mil (25.4 µm)	3910 ft-lb/in ³	324 J/cm ³	
TD: 1.00 mil (25.4 µm)	3720 ft-lb/in ³	308 J/cm ³	
Tensile Strength			ASTM D882
MD: Yield, 1.00 mil (25.4 µm)	2450 psi	16.9 MPa	
TD: Yield, 1.00 mil (25.4 µm)	2550 psi	17.6 MPa	
MD: Break, 1.00 mil (25.4 µm)	8590 psi	59.2 MPa	
TD: Break, 1.00 mil (25.4 µm)	5790 psi	39.9 MPa	
Tensile Elongation			ASTM D882
MD: Break, 1.00 mil (25.4 µm)	620 %	620 %	
TD: Break, 1.00 mil (25.4 µm)	750 %	750 %	
Dart Drop Impact (1.00 mil (25.4 µm))	57 g	57 g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD: 1.00 mil (25.4 µm)	83 g	83 g	
TD: 1.00 mil (25.4 µm)	290 g	290 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	246 °F	119 °C	ASTM D1525
Melting Temperature (DSC)	257 °F	125 °C	Dow Method
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°, 1.00 mil (25.4 µm))	90	90	ASTM D2457
Haze (1.00 mil (25.4 µm))	2.6 %	2.6 %	ASTM D1003
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	525 °F	274 °C	

Extrusion Notes

Fabrication Conditions For Cast Film:

Monolayer cast film produced on 5 layer cast line:

- Screw Size: 2 in. (51 mm); 30:1 L/D
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
- Screw Size: 2 in. (51 mm); 30:1 L/D
- Die Gap: 25 mil (0.6 mm)
- Chill Roll Temperature: 70°F (21°C)
- Melt Temperature: 525°F (274°C)
- Line Speed: 600 fpm (183 m/min)

Notes

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

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