



DOWLEX™ 2037 Polyethylene Resin

- Overview**
- Diaper back sheet
 - For high stiffness film applications
 - Complies with U.S. FDA 21 CFR 177.1520 (c) 3.2a.
 - Consult the regulations for complete details.

- Additive**
- Antiblock: No
 - Slip: No
 - Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.935 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)	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 mil	25 µm	
Film Puncture Resistance (1.0 mil (25 µm))	87.0 ft·lb/in ³	7.20 J/cm ³	Dow Method
Film Toughness			ASTM D882
MD : 1.0 mil (25 µm)	1550 ft·lb/in ³	128 J/cm ³	
TD : 1.0 mil (25 µm)	1690 ft·lb/in ³	140 J/cm ³	
Tensile Strength			ASTM D882
MD : Yield, 1.0 mil (25 µm)	2610 psi	18.0 MPa	
TD : Yield, 1.0 mil (25 µm)	2660 psi	18.3 MPa	
MD : Break, 1.0 mil (25 µm)	8180 psi	56.4 MPa	
TD : Break, 1.0 mil (25 µm)	4910 psi	33.8 MPa	
Tensile Elongation			ASTM D882
MD : Break, 1.0 mil (25 µm)	480 %	480 %	
TD : Break, 1.0 mil (25 µm)	740 %	740 %	
Dart Drop Impact (1.0 mil (25 µm))	45 g	45 g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD : 1.0 mil (25 µm)	28 g	28 g	
TD : 1.0 mil (25 µm)	720 g	720 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	246 °F	119 °C	ASTM D1525
Melting Temperature (DSC)	255 °F	124 °C	Dow Method
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°, 1.00 mil (25.4 µm))	88	88	ASTM D2457
Haze (1.00 mil (25.4 µm))	3.20 %	3.20 %	ASTM D1003

Extrusion Notes

Fabrication Conditions For Cast Film:

- Screw Size: 3.5 in. (89 mm); 32:1 L/D
- Screw Type: Sterlex
- Melt Temperature: 527°F (275°C)
- Screw Size: 2.5 in. (63.5 mm); 24:1 L/D
- Screw Type: Single flight with Maddock Mixer
- Melt Temperature: 527°F (275°C)
- Screw Size: 2.0 in. (51 mm); 24:1 L/D
- Screw Type: Single flight
- Melt Temperature: 526°F (274°C)
- Chill Roll Temperature: 70°F (21°C)
- Line Speed: 601 fpm (183 m/min)

