



DOWLEX™ 2645G

Polyethylene Resin

Overview DOWLEX™ Polyethylene Resin is designed for the production of a wide variety of film applications. Films made from this resin exhibit a combination of good toughness and tear resistance.

Complies with:

- U.S. FDA FCN 741
- HPFB (Canada), No Objection
- EU, No 10/2011

Consult the regulations for complete details.

Additive • Antiblock: No • Slip: No • Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.919 g/cm ³	0.919 g/cm ³	ASTM D792
Base Density ¹	0.919 g/cm ³	0.919 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	0.90 g/10 min	0.90 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	2.0 mil	51 µm	
Film Puncture Resistance (2.0 mil (51 µm))	201 ft-lb/in ³	16.6 J/cm ³	Dow Method
Secant Modulus			ASTM D882
2% Secant, MD : 2.0 mil (51 µm)	24400 psi	168 MPa	
2% Secant, TD : 2.0 mil (51 µm)	34500 psi	238 MPa	
Tensile Strength			ASTM D882
MD : Yield, 2.0 mil (51 µm)	2060 psi	14.2 MPa	
TD : Yield, 2.0 mil (51 µm)	2120 psi	14.6 MPa	
MD : Break, 2.0 mil (51 µm)	7080 psi	48.8 MPa	
TD : Break, 2.0 mil (51 µm)	5680 psi	39.2 MPa	
Tensile Elongation			ASTM D882
MD : Break, 2.0 mil (51 µm)	620 %	620 %	
TD : Break, 2.0 mil (51 µm)	740 %	740 %	
Dart Drop Impact (2.0 mil (51 µm))	300 g	300 g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD : 2.0 mil (51 µm)	720 g	720 g	
TD : 2.0 mil (51 µm)	1000 g	1000 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	225 °F	107 °C	ASTM D1525
Melting Temperature (DSC)	248 °F	120 °C	Dow Method
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°, 2.00 mil (50.8 µm))	63	63	ASTM D2457
Haze (2.00 mil (50.8 µm))	12 %	12 %	ASTM D1003

Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 2.5 in. (63.5 mm) 30:1L/D
- Screw Type: DSBII
- Die Gap: 70 mil (1.8 mm)
- Output: 10 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5 : 1

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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Published: 2005-11-17

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