LLDPE

LLDPE 2645G

LINEAR LOW DENSITY POLYETHYLENE (LLDPE)

DOWLEX™ 2645G 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.

Typical Application	Product Characteristics	International Compliance
• Wide variety of film applications	• Good toughness • Good tear resistance	• U.S. FDA FCN 741 • HPFB (Canada), No Objection • EU, No 10/2011

Film Properties

Properties	Test Method	Typical Value	Unit
Film Thickness - Tested		51	µm
Film Puncture Resistance (51 µm)	Dow Method	16.6	J/cm³
2% Secant Modulus, MD (51 µm)	ASTM D882	168	MPa
2% Secant Modulus, TD (51 µm)	ASTM D882	238	MPa
Tensile Strength, MD : Yield (51 µm)	ASTM D882	14.2	MPa
Tensile Strength, TD : Yield (51 µm)	ASTM D882	14.6	MPa
Tensile Strength, MD : Break (51 µm)	ASTM D882	48.8	MPa
Tensile Strength, TD : Break (51 µm)	ASTM D882	39.2	MPa
Tensile Elongation, MD : Break (51 µm)	ASTM D882	620	%
Tensile Elongation, TD : Break (51 µm)	ASTM D882	740	%
Dart Drop Impact (51 µm)	ASTM D1709A	300	g
Elmendorf Tear Strength, MD (51 µm)	ASTM D1922	720	g
Elmendorf Tear Strength, TD (51 µm)	ASTM D1922	1000	g
Gloss (45°, 50.8 µm)	ASTM D2457	63	
Haze (50.8 µm)	ASTM D1003	12.0	%

Physical Properties

Properties	Test Method	Typical Value	Unit
Density	ASTM D792	0.919	g/cm³
Base Density[1]	Dow Method	0.919	g/cm³
Melt Index (190°C/2.16 kg)	ASTM D1238	0.90	g/10 min
Vicat Softening Temperature	ASTM D1525	107	°C
Melting Temperature (DSC)	Dow Method	120	°C

Processing Guidelines

Fabrication Conditions For Blown Film:

- Screw Size: 2.5 in. (63.5 mm) 30:1 L/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

Additive Information: Antiblock: No | Slip: No | Processing Aid: No

1. These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.
2. [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.