Technical Information

DOWLEX™ 2645.11GY
Polyethylene Resin

Overview

DOWLEX™ 2645.11GY 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 1539
- EU, No 10/2011

Consult the regulations for complete details.

Additive

- Antiblock: 2000 ppm
- Slip: 1200 ppm
- Processing Aid: No

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.921	g/cm³	0.921	g/cm³	ASTM D792
Base Density [1]	0.921	g/cm³	0.921	g/cm³	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))	80.0	ft·lb/in³	6.62	J/cm³	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)	660	%	660	%	
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))	56		56		ASTM D2457
Haze (2.00 mil (50.8 µm))	14.0	%	14.0	%	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