DOWLEX™ 2685G
Polyethylene Resin

Overview

DOWLEX™ 2685G Linear Low 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
- Canadian HPFB No Objection
- EU, No 10/2011

Consult the regulations for complete details.

Additive

- Antiblock: 5100 ppm
- Slip: 917 ppm
- Processing Aid: No

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.920	g/cm³	0.920	g/cm³	ASTM D792
Base Density [1]	0.917	g/cm³	0.917	g/cm³	Dow Method
Melt Index (190°C/2.16 kg)	0.75	g/10 min	0.75	g/10 min	ASTM D1238
Films	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Film Thickness - Tested	1	mil	25	µm	
Film Puncture Energy	41.0	in·lb	4.63	J	
Film Puncture Force	14.0	lbf	62.3	N	
Film Puncture Resistance	246	ft·lb/in³	20.4	J/cm³	
Film Toughness					ASTM D882
MD	1610	ft·lb/in³	133	J/cm³	
TD	1600	ft·lb/in³	132	J/cm³	
Secant Modulus					ASTM D882
1% Secant, MD	23300	psi	160	MPa	
2% Secant, MD	19400	psi	133	MPa	
1% Secant, TD	26500	psi	183	MPa	
2% Secant, TD	21400	psi	147	MPa	
Tensile Strength					ASTM D882
MD : Yield	1630	psi	11.2	MPa	
TD : Yield	1620	psi	11.2	MPa	
MD : Break	8160	psi	56.3	MPa	
TD : Break	6870	psi	47.3	MPa	
Tensile Elongation					ASTM D882
MD : Break	610	%	610	%	
TD : Break	690	%	690	%	
Dart Drop Impact	630	g	630	g	ASTM D1709A
Elmendorf Tear Strength					ASTM D1922
MD	400	g	400	g	
TD	520	g	520	g	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Vicat Softening Temperature	216	°F	102	°C	ASTM D1525
Melting Temperature (DSC)	246	°F	119	°C	Dow Method
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Gloss (45°)	47		47		ASTM D2457
Haze	16.0	%	16.0	%	ASTM D1003

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Extrusion Notes

Fabrication Conditions For Blown Film:

- Die Size: 8 in.
- Screw Type: DSB II
- Die Gap: 70 mil
- Melt Temperature: 437°F
- Output: 12 lb/hr/in. of die circumference
- Die Diameter: 8 in.
- Blow-Up Ratio: 2.5:1
- Screw Speed: 39 rpm
- Frost Line Height: 43 in.

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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