



# DOWLEX™ 2285G

## Linear Low Density Polyethylene Resin

**Overview** DOWLEX 2285G is a blown film extrusion linear low density polyethylene resin grade suitable for high toughness film applications.

Main Characteristics:

- Linear Low Density Polyethylene/Octene Copolymer
- For film applications that require high toughness properties or improve bubble stability

Complies with:

- U.S. FDA 21 CFR 177.1520(c) 3.2a
- Europe EU-Directive 2002/72/EC
- Consult the regulations for complete details.

<b>Additive</b>	• Antiblock: 5100 ppm	• Slip: 920 ppm	• Processing Aid: No
<b>Physical</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Density	0.920 g/cm <sup>3</sup>	0.920 g/cm <sup>3</sup>	ASTM D792
Base Density <sup>1</sup>	0.916 g/cm <sup>3</sup>	0.916 g/cm <sup>3</sup>	Dow Method
Melt Index (190°C/2.16 kg)	0.75 g/10 min	0.75 g/10 min	ASTM D1238
<b>Films</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Film Thickness - Tested	1.0 mil	25 µm	
Film Puncture Energy	37.0 in·lb	4.18 J	Dow Method
Film Puncture Force	12.0 lbf	53.4 N	Dow Method
Film Puncture Resistance	248 ft·lb/in <sup>3</sup>	20.5 J/cm <sup>3</sup>	Dow Method
Film Toughness			ASTM D882
MD	1060 ft·lb/in <sup>3</sup>	87.9 J/cm <sup>3</sup>	
TD	1360 ft·lb/in <sup>3</sup>	112 J/cm <sup>3</sup>	
Secant Modulus			ASTM D882
1% Secant, MD	27200 psi	188 MPa	
2% Secant, MD	24800 psi	171 MPa	
1% Secant, TD	30200 psi	208 MPa	
2% Secant, TD	26600 psi	183 MPa	
Tensile Strength			ASTM D882
MD : Yield	1610 psi	11.1 MPa	
TD : Yield	1650 psi	11.4 MPa	
MD : Break	6500 psi	44.8 MPa	
TD : Break	6090 psi	42.0 MPa	
Tensile Elongation			ASTM D882
MD : Break	450 %	450 %	
TD : Break	640 %	640 %	
Dart Drop Impact	620 g	620 g	ASTM D1709A
Elmendorf Tear Strength <sup>2</sup>			ASTM D1922
MD	380 g	380 g	
TD	660 g	660 g	
<b>Thermal</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Vicat Softening Temperature	216 °F	102 °C	ASTM D1525
Melting Temperature	246 °F	119 °C	
<b>Optical</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Gloss	41	41	ASTM D2457
Haze	19 %	19 %	ASTM D1003



Extrusion	Nominal Value (English)	Nominal Value (SI)
Melt Temperature	436 °F	224 °C

#### Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Size: 3.5 in.
- Screw Type: DSB II
- Die Gap: 70mil
- Melt Temperature: 436°F
- Output: 12 lb/hr/in. of die circumference
- Die Diameter: 8 in.
- Blow-Up Ratio: 2.5 to 1
- Screw Speed: 38.9 rpm
- Frost Line Height: 40 in.

#### Notes

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

<sup>1</sup> 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/cm<sup>3</sup>. Base density is the estimated density of the polymer if it did not contain any antiblock.

<sup>2</sup> Method B

