



# DOWLEX™ 2047G

## Polyethylene Resin

### Overview

- Linear Low Density Polyethylene
- For high performance stretch film applications
- Outstanding tear strength, impact strength and toughness

Complies with:

- U.S. FDA, FCN 424
- 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	0.917 g/cm <sup>3</sup>	0.917 g/cm <sup>3</sup>	ASTM D792
Base Density <sup>1</sup>	0.917 g/cm <sup>3</sup>	0.917 g/cm <sup>3</sup>	Dow Method
Melt Index (190°C/2.16 kg)	2.3 g/10 min	2.3 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	1 mil	20 µm	
Film Puncture Resistance (0.80 mil (20 µm))	267 ft·lb/in <sup>3</sup>	22.1 J/cm <sup>3</sup>	Dow Method
Film Toughness			ASTM D882
MD : 0.80 mil (20 µm)	2130 ft·lb/in <sup>3</sup>	176 J/cm <sup>3</sup>	
TD : 0.80 mil (20 µm)	2060 ft·lb/in <sup>3</sup>	171 J/cm <sup>3</sup>	
Tensile Strength			ASTM D882
MD : Yield, 0.80 mil (20 µm)	1280 psi	8.79 MPa	
TD : Yield, 0.80 mil (20 µm)	1180 psi	8.16 MPa	
MD : Break, 0.80 mil (20 µm)	7270 psi	50.1 MPa	
TD : Break, 0.80 mil (20 µm)	4180 psi	28.8 MPa	
Tensile Elongation			ASTM D882
MD : Break, 0.80 mil (20 µm)	460 %	460 %	
TD : Break, 0.80 mil (20 µm)	650 %	650 %	
Dart Drop Impact (0.80 mil (20 µm))	210 g	210 g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD : 0.80 mil (20 µm)	340 g	340 g	
TD : 0.80 mil (20 µm)	510 g	510 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	208 °F	97.8 °C	ASTM D1525
Melting Temperature (DSC)	252 °F	122 °C	Dow Method
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°, 0.800 mil (20.3 µm))	95	95	ASTM D2457
Haze (0.800 mil (20.3 µm))	0.400 %	0.400 %	ASTM D1003



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## Extrusion Notes

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### Fabrication Conditions For Cast Film:

- Screw Size: 2.0 in. (51 mm); 30:1 L/D
  - Melt Temperature: 524°F (273°C)
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
  - Melt Temperature: 525°F (274°C)
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
  - Melt Temperature: 525°F (274°C)
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
  - Melt Temperature: 524°F (273°C)
- Screw Size: 2.0 in. (51 mm); 30:1 L/D
  - Melt Temperature: 525°F (274°C)
- Chill Roll Temperature: 70°F (21°C)
- Screw Speed: 35 rpm
- Line Speed: 376 fpm (122 m/min)

## Notes

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

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<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.

