



# 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 21 CFR 177.1520 (c) 3.1a.
- Consult the regulations for complete details.

When used unmodified for food contact applications, DOWLEX™ 2047G Polyethylene Resin will comply with the Federal Food, Drug, and Cosmetic Act as a food contact substance as a result of a premarket food contact notification (FCN) with an effective date of October 7, 2004 under FCN 424. This notification allows for use of this product as articles or components of articles used in contact with all food types under Conditions of Use A through H, as described in U.S. FDA Table 2 of 21 CFR § 176.170(c). The composition of this product complies with the requirements for use in contact with food of the EU-Directive 2002/72/EC. Contact a Dow Sales Office to obtain a detailed food contact compliance letter for this product.

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
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	0.800 mil	20.3 µm	
Film Puncture Resistance 0.800 mil (20.3 µm)	267 ft-lb/in <sup>3</sup>	22.1 J/cm <sup>3</sup>	Dow Method
Film Toughness			ASTM D882
MD: 0.800 mil (20.3 µm)	2130 ft-lb/in <sup>3</sup>	176 J/cm <sup>3</sup>	
TD: 0.800 mil (20.3 µm)	2060 ft-lb/in <sup>3</sup>	171 J/cm <sup>3</sup>	
Tensile Strength			ASTM D882
MD: Yield, 0.800 mil (20.3 µm)	1280 psi	8.79 MPa	
TD: Yield, 0.800 mil (20.3 µm)	1180 psi	8.16 MPa	
MD: Break, 0.800 mil (20.3 µm)	7270 psi	50.1 MPa	
TD: Break, 0.800 mil (20.3 µm)	4180 psi	28.8 MPa	
Tensile Elongation			ASTM D882
MD: Break, 0.800 mil (20.3 µm)	460 %	460 %	
TD: Break, 0.800 mil (20.3 µm)	650 %	650 %	
Dart Drop Impact (0.800 mil (20.3 µm))	210 g	210 g	ASTM D1709B
Elmendorf Tear Strength			ASTM D1922
MD: 0.800 mil (20.3 µm)	340 g	340 g	
TD: 0.800 mil (20.3 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))	0.40 %	0.40 %	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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