



DOWLEX™ GM 8090 Polyethylene Resin

Overview

DOWLEX™ GM 8090 Polyethylene Resin is a next generation linear low density polyethylene resin designed for high quality blown film applications requiring a combination of excellent optical properties, tear strength and sealability, and a very good toughness/stiffness balance. DOWLEX GM 8090 Polyethylene Resin is also designed to offer a very high processability and very low gel level making it ideal for use in lamination films and other specialty packaging.

Note: DOWLEX™ GM 8090 Polyethylene Resin should comply with FDA regulation 177.1520 and with most European food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications. Please, contact your nearest Dow office regarding food contact compliance statements. The purchaser remains responsible for determining whether the use complies with all relevant regulations.

Applications:

- High clarity tissue overwrap
- Produce bags
- Food packaging films
- Lamination film

Complies with:

- EU, 10/2011
- U.S. FDA 21 CFR 177.1520
- U.S. FDA 21 CFR 177.1520(c)3.2a.
- U.S. FDA FCN 1539

Consult the regulations for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.916 g/cm ³	0.916 g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	1.0 g/10 min	1.0 g/10 min	ASTM D1238
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Film Thickness - Tested	2 mil	50 µm	
Film Toughness			ASTM D882
MD	822 ft-lb/in ³	68.0 J/cm ³	
TD	882 ft-lb/in ³	73.0 J/cm ³	
Tensile Strength			ASTM D882
MD : Yield	870 psi	6.00 MPa	
TD : Yield	1060 psi	7.30 MPa	
MD : Break	3920 psi	27.0 MPa	
TD : Break	4060 psi	28.0 MPa	
Tensile Elongation			ASTM D882
MD : Break	500 %	500 %	
TD : Break	550 %	550 %	
Dart Drop Impact	700 g	700 g	ASTM D1709B
Elmendorf Tear Strength			ASTM D1922
MD	600 g	600 g	
TD	790 g	790 g	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	226 °F	108 °C	ASTM D1525
Melting Temperature (DSC)	232 °F	111 °C	DSC
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss (45°)	47	47	ASTM D2457
Haze	14.0 %	14.0 %	ASTM D1003

Extrusion Notes

Fabrication Conditions for Blown Film Resin:

- Melt Temperature: 190 to 240°C
- Blow-Up Ratio: 1.5 to 3.1

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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