

# DOW™ LDPE PG 70

## Low Density Polyethylene Resin

### Overview

Dow LDPE PG 7008 Polyethylene Resin is typically used in extrusion coating applications. Dow LDPE PG 7008 Polyethylene Resin can be readily processed using conventional LDPE extrusion coating hardware of melt temperatures of 270 to 335°C, preferably less than 290°C, for best sensory performance. Dow LDPE PG 7008 Polyethylene Resin provides low volatile organic carbon (VOC) emissions in extrusion, contributing to low factory emissions and optimal sensory performance. When processed on suitable hardware, Dow LDPE PG 7008 Polyethylene Resin exhibits excellent draw down good edge stability and low neck-in.

#### Applications:

- Paper, board and foil coatings for packaging, food and non-food

#### Complies with:

- U.S. FDA 21 CFR 177.1520(c)2.2
- EU, No 10/2011
- Canadian HPFB No Objection

Consult the regulations for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.918 g/cm <sup>3</sup>	0.918 g/cm <sup>3</sup>	ASTM D792
Melt Index (190°C/2.16 kg)	7.7 g/10 min	7.7 g/10 min	ISO 1133
Molding Shrinkage - Flow (428°F (220°C))	0.026 in/in	2.6 %	ASTM D955 <sup>1</sup>
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus - 2% Secant	23200 psi	160 MPa	ASTM D638
Tensile Strength			ASTM D638
Yield	1160 psi	8.00 MPa	
Break	1450 psi	10.0 MPa	
Tensile Elongation (Break)	450 %	450 %	ASTM D638
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Seal Initiation Temperature	221 °F	105 °C	Dow Method <sup>2</sup>
Water Vapor Transmission	17 g/100 in <sup>2</sup> /24 hr	270 g/m <sup>2</sup> /24 hr	ASTM E398-83 <sup>3</sup>
Minimum Heat Seal Temperature	212 to 248 °F	100 to 120 °C	Dow Method
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	192 °F	89.0 °C	ISO 306/A
Melting Temperature	223 °F	106 °C	DSC
Extrusion	Nominal Value (English)	Nominal Value (SI)	Test Method
Melt Temperature	518 to 635 °F	270 to 335 °C	
Minimum Coating Weight	3.1 lb/ream	5.0 g/m <sup>2</sup>	Dow Method <sup>4</sup>
Neck-in	2.6 in	65.0 mm	Dow Method <sup>5</sup>

### 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> 0.5 seconds injection.

<sup>2</sup> Temperature required to reach 3 N/15 mm for a 25 g/m<sup>2</sup> coating of PG 7008 onto paper

<sup>3</sup> 38°C, 90% RH  
Divide by coating weight in g/m<sup>2</sup> to obtain actual WVTR.

<sup>4</sup> 290°C set temperature.

<sup>5</sup> 100 m/min, 25 g/m<sup>2</sup> coatings at 290°C set temperature.

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