



# DOW™ LDPE PG 7004 (Extrusion Coating)

## Low Density Polyethylene Resin

### Overview

DOW LDPE™ PG 7004 Polyethylene Resin is typically used in extrusion coating applications. DOW LDPE PG 7004 Polyethylene Resin is designed for processing on conventional LDPE extrusion coating hardware at melt temperatures of 270 to 335°C, preferably less than 290°C, for best sensory performance. DOW LDPE PG 7004 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 7004 polyethylene resin exhibits:

- Excellent draw down.
- Good edge stability.
- Low neck-in.

Complies with:

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

Consult the regulations for complete details.

Applications:

- Paper board
- Foil coatings for packaging food and non-food

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.922 g/cm <sup>3</sup>	0.922 g/cm <sup>3</sup>	ASTM D792
Melt Index (190°C/2.16 kg)	4.1 g/10 min	4.1 g/10 min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus - 2% Secant	29600 psi	204 MPa	ASTM D638
Tensile Strength			ASTM D638
Yield	1740 psi	12.0 MPa	
Ultimate	1280 psi	8.80 MPa	
Tensile Elongation (Break)	470 %	470 %	ASTM D638
Films	Nominal Value (English)	Nominal Value (SI)	Test Method
Seal Initiation Temperature <sup>1</sup>	230 °F	110 °C	Dow Method
Water Vapor Transmission <sup>2</sup>	15 g/100 in <sup>2</sup> /24 hr	240 g/m <sup>2</sup> /24 hr	ASTM E398-83
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	208 °F	98.0 °C	ISO 306/A
Melting Temperature	230 °F	110 °C	DSC
Extrusion	Nominal Value (English)	Nominal Value (SI)	Test Method
Melt Temperature	518 to 635 °F	270 to 335 °C	
Minimum Coating Weight <sup>3</sup>	12 lb/ream	20 g/m <sup>2</sup>	Dow Method
Neck-in <sup>4</sup>	3.0 in	75.0 mm	Dow Method

### 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> Temperature required to reach 3 N/15 mm for a 25 g/m<sup>2</sup> coating of LDPE PG 7004 Polyethylene Resin onto paper.

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

<sup>3</sup> 290°C set temperature.

<sup>4</sup> 100 m/min, 25 g/m<sup>2</sup> coatings at 290°C set temperature.

