# DOW™ LDPE PG 7004 (Extrusion Coating)

#### Low Density Polyethylene Resin

#### The Dow Chemical Company

#### Message:

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

General Information					
Agency Ratings	DMF Unspecified Rating				
	EU No 10/2011				
	FDA 21 CFR 177.1520(c) 2.2				
	HPFB (Canada) No Objection				
Forms	Pellets				
Processing Method	Extrusion Coating				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	0.922	g/cm³	ASTM D792		
Melt Mass-Flow Rate (MFR) (190°C/2.16					
kg)	4.1	g/10 min	ISO 1133		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus - 2% Secant	204	MPa	ASTM D638		
Tensile Strength			ASTM D638		
Yield	12.0	MPa			
Ultimate	8.80	MPa			
Tensile Elongation (Break)	470	%	ASTM D638		
Films	Nominal Value	Unit	Test Method		
Seal Initiation Temperature <sup>1</sup>	110	°C	Internal Method		
Water Vapor Transmission <sup>2</sup>	240	g/m²/24 hr	ASTM E398-83		
Thermal	Nominal Value	Unit	Test Method		
Vicat Softening Temperature	98.0	°C	ISO 306/A		
Melting Temperature	110	°C	DSC		

Extrusion	Nominal Value	Unit	Test Method
Melt Temperature	270 to 335	°C	
Minimum Coating Weight <sup>3</sup>	20	g/m²	Internal Method
Neck-in <sup>4</sup>	75.0	mm	Internal Method
NOTE			
1.	Temperature required to reach 3 N/15 mm for a 25 $g/m^2$ coating of LDPE PG 7004 Polyethylene Resin onto paper.		
2.	38°C, 90% RHDivide by coating weight in g/m² to obtain actual WVTR.		
3.	290°C set temperature.		
4.	100 m/min, 25 g/m <sup>2</sup> coatings at 290°C set temperature.		

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