



Technical Data Sheet

DOW™ LDPE PG 7004 REN (Extrusion Coating)

Low Density Polyethylene Resin

Description

DOW™ LDPE PG 7004 REN Low Density Polyethylene Resin is typically used in extrusion coating applications. DOW™ LDPE PG 7004 REN Low Density 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 REN Low Density Polyethylene Resin provides low volatile organic carbon (VOC) emissions in extrusion, contributing to low factory emissions and optimal sensory performance.

Sustainability Attribute:



Main Characteristics

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

Applications

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

Complies with

- EU, No 10/2011
- U.S. FDA 21 CFR 177.1520(c)2.2
- U.S. FDA-DMF
- Canadian HPFB No Objection (with limitations)
- ISCC PLUS certification for bio-circular plastics

Consult the regulations for complete details.

Properties¹

Physical	Nominal Value	Unit	Test Method ²
Density	0.922	g/cm ³	ASTM D792
Melt Index (190°C/2.16kg)	4.1	g/cm ³	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus – 2% Secant	204	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield	12.0	MPa	
Break	8.80	MPa	
Tensile Elongation (Break)	470	%	ASTM D882

1. Typical properties: these are not to be construed as specifications. Users should confirm results by their own tests.
2. ASTM: American Society for Testing and Materials
ISO: International Standardization Organization



Properties (Cont.)

Films	Nominal Value	Unit	Test Method
Seal Initiation Temperature ³	110	°C	Internal Method
Water Vapor Transmission ⁴	240	g/m ² /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 ⁵	20	g/cm ²	Internal Method
Neck-in ⁶	75.00	mm	Internal Method

3. Temperature required to reach 3 N/15mm for a 25 g/m² coating of PG 7004 REN onto paper.
4. 38°C, 90% RH
Divide by coating weight in g/m² to obtain actual WVTR
5. 290°C set temperature
6. 100 m/min, 25 g/m² coatings at 290°C set temperature

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- b. use in cardiac prosthetic devices regardless of the length of time involved ("cardiac prosthetic devices" include, but are not limited to, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass-assisted devices);
- c. use as a critical component in medical devices that support or sustain human life;
- d. use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction; or
- e. use as an ingredient of a pharmaceutical injectable application.



Medical Applications Policy (Cont.)

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