



Technical Data Sheet

DOW™ LDPE PG 7004 REN (Injection Molding)

Low Density Polyethylene Resin

Description

DOW™ LDPE PG 7004 REN Low Density Polyethylene Resin from Dow has been designed to exhibit good processability, balanced physical properties, good rigidity and surface gloss, and excellent organoleptics when it is properly injection moulded.

Sustainability Attribute:



Applications

- Housewares
- Toys
- Containers
- Lids
- Caps

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
Spiral Flow ^{3,4}	94.0	cm	Internal Method
Mold Shrinkage – Flow ⁵ (428°F (220°C))	3.0	%	ASTM D955
Environmental Stress-Cracking Resistance (ESCR) ⁶ 122°F (50°C), 0.5% AntaroX, Compression Molded	4.00	hr	ASTM D1693
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Yield, Compression Molded	12.0	MPa	
Ultimate, Compression Molded	8.80	MPa	
Tensile Elongation (Break, Compression Molded)	220	%	ASTM D638
Flexural Modulus – 2% Secant (Compression Molded)	230	MPa	ASTM D790

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
3. Melt Temperature: 428°F (220°C)
4. 2 seconds injection
5. 0.5 second injection
6. Notched



Properties (Cont.)

Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength (Compression Molded)	100	kJ/m ²	ASTM D1822
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness – Shore D, Compression Molded	51		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	98.0	°C	ASTM D1525

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- use as a critical component in medical devices that support or sustain human life;
- use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction; or
- use as an ingredient of a pharmaceutical injectable application.

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