



DOW™ HDPE 04852N High Density Polyethylene Resin

Overview

DOW HDPE 04852N High Density Polyethylene Resin (HDPE) is a narrow molecular weight distribution copolymer designed to offer excellent impact strength and toughness combined with good stiffness. This resin has good processability over a wide range of molding conditions. It is intended for use in injection molding applications such as pails, industrial parts and other shipping containers; it can also be used for structural foamed parts.

- Excellent impact strength and toughness
- Good stiffness
- For injection molded pails, industrial parts, shipping containers and structural foamed parts.

Complies with:

- U.S. FDA 21 CFR 177.1520(c)3.2a
- Canadian HPFB No Objection

Consult the regulation for complete details.

Additive:

- Antiblock: No
- Slip: No
- Processing Aid: No

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Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.952 g/cm ³	0.952 g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	4.8 g/10 min	4.8 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) ¹			ASTM D1693
122°F (50°C), 100% Igepal, F50	22.0 hr	22.0 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ²			ASTM D638
Yield	3900 psi	26.9 MPa	
Break	4500 psi	31.0 MPa	
Tensile Elongation ²			ASTM D638
Yield	10 %	10 %	
Break	1200 %	1200 %	
Flexural Modulus ²	160000 psi	1100 MPa	ASTM D790B
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Impact Strength ^{3, 2}	45.0 ft-lb/in ²	94.6 kJ/m ²	ASTM D1822
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature ²	< -105 °F	< -76.1 °C	ASTM D746
Vicat Softening Temperature	266 °F	130 °C	ASTM D1525
Melting Temperature (DSC)	268 °F	131 °C	Dow Method
Peak Crystallization Temperature (DSC)	246 °F	119 °C	Dow Method

Additional Information

Plaque molded and tested in accordance with ASTM D 4976.

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ Molded and tested in accordance with ASTM D4976

² Molded and tested in accordance with ASTM D4976.

³ Type S

