



DOW™ HDPE 08452N

High Density Polyethylene Resin

Overview

DOW™ HDPE 08452N 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.

Main Characteristics:

- 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
- EU, 10/2011

Consult the regulations for complete details.

Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.952 g/cm ³	0.952 g/cm ³	ASTM D792
Base Density ¹	0.952 g/cm ³	0.952 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	7.0 g/10 min	7.0 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) ²			ASTM D1693
122°F (50°C), 100% Igepal, F50	12.0 hr	12.0 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield	3900 psi	26.9 MPa	
Break	3400 psi	23.4 MPa	
Tensile Elongation			ASTM D638
Yield	7.0 %	7.0 %	
Break	1100 %	1100 %	
Flexural Modulus - Secant	155000 psi	1070 MPa	ASTM D790B
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Impact Strength ³	40.0 ft·lb/in ²	84.1 kJ/m ²	ASTM D1822
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature	< -105 °F	< -76.1 °C	ASTM D746
Vicat Softening Temperature	262 °F	128 °C	ASTM D1525
Melting Temperature (DSC)	268 °F	131 °C	Dow Method
Peak Crystallization Temperature (DSC)	244 °F	118 °C	Dow Method

Notes

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

¹ Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

² Molded and tested in accordance with ASTM D 4976.

³ Type S

