

DOW™ HDPE 10462N High Density Polyethylene Resin

Overview

DOW™ 10462N High Density Polyethylene Resin (HDPE) is a narrow molecular weight distribution, high density homopolymer designed to provide excellent stiffness, low warpage, acceptable toughness, and good moldability. This resin is ideally suited for injection molding crates, cases, trays, tote bins, and other objects requiring high rigidity and offering excellent processability over a wide range of molding conditions.

Main Characteristics:

- Excellent stiffness / modulus
- Excellent warp resistance
- Designed for tote boxes, industrial containers and other parts requiring high modulus

Complies with:

- U.S. FDA 21 CFR 177.1520(c)3.2a
- Europe EU-Directive 2002/72/EC
- U.S. FDA-DMF

Consult the regulations for complete details.

Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.963 g/cm ³	0.963 g/cm ³	ASTM D792
Base Density	0.963 g/cm ³	0.963 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	10 g/10 min	10 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638 ¹
Yield	4300 psi	29.6 MPa	
Break	2100 psi	14.5 MPa	
Tensile Elongation			ASTM D638 ¹
Yield	9.0 %	9.0 %	
Break	200 %	200 %	
Flexural Modulus - 2% Secant	190000 psi	1310 MPa	ASTM D790B ¹
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Impact Strength	75.0 ft-lb/in ²	158 kJ/m ²	ASTM D1822 ^{1,2}
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature	< -100 °F	< -73.3 °C	ASTM D746 ¹
Vicat Softening Temperature	262 °F	128 °C	ASTM D1525
Melting Temperature (DSC)	273 °F	134 °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 Molded and tested in accordance with ASTM D 4976.

² Type S

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