

Producer: The Dow Chemical Company (DOW)/ The United States (USA)

10462N

Description:

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.

Applications:

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

PROPERTY	NOMINAL VALUE (ENGLISH)	NOMINAL VALUE (SI)	TEST METHOD
Physical			
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 ¹
Melt Index at (190 °C/ 2.16 kg)	10 g/10 min	10 g/10 min	ASTM D1238
Mechanical			
Tensile Strength Yield	4300 psi	29.6 Mpa	ASTM D638
Tensile Strength Break	2100 psi	14.5 Mpa	ASTM D638
Tensile Elogation Yield	9.0 %	9.0 %	ASTM D638
Tensile Elogation Break	200%	200%	ASTM D638
Flexural Modulus-2% Secant	190000 psi	1310 Mpa	ASTM D790B2
Impact			
Tensile Impact Strength	75.0 ft·lb/in ²	158 kJ/m ²	ASTM D18223,2
Thermal			
Brittleness Temperature	< - 100 °F	< - 73.3 °C	ASTM D7462
Vicat Softening Temperature	262 °F	128 °C	ASTM D1525
Melting Temperature (DSC)	273 °F	134 °C	DOW METHOD

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

¹Base 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