Technical Data Sheet

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
- EU, No 10/2011
- U.S. FDA-DMF

Consult the regulations for complete details.

Additive

- Antiblock: No
- Slip: No
- Processing aid: No

Properties

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method[1]
Density	0.963	g/cm^3	0.963	g/cm^3	ASTM D792
Base Density[2]	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					
Tensile Strength[3]					ASTM D638
Yield	4300	psi	29.6	MPa	
Break	2100	psi	14.5	MPa	

1. ASTM: American Society for Testing and Materials
2. 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/cm^3. Base density is the estimated density of the polymer if it did not contain any antiblock.
3. Molded and tested in accordance with ASTM D 4976.

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

Properties (Cont.)

Mechanical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Tensile Elongation[3]					ASTM D638
Yield	9.0	%	9.0	%	
Break	200	%	200	%	
Flexural Modulus - 2% Secant[3]	190000	psi	1310	MPa	ASTM D790B
Impact					
Tensile Impact Strength[3,4]	75.0	ft-lb/in^2	158	kJ/m^2	ASTM D1822
Thermal					
Brittleness Temperature[3]	< -100	°F	< -73.3	°C	ASTM D746
Vicat Softening Temperature	262	°F	128	°C	ASTM D1525
Melting Temperature (DSC)	273	°F	134	°C	Dow Method