

**DOW™ HDPE 12450N High Density Polyethylene Resin****Description**

DOW™ HDPE 12450N High Density Polyethylene Resin is a narrow molecular weight distribution copolymer designed to offer low temperature impact strength and gloss with excellent toughness. This resin has good processability over a wide range of molding conditions.

**Main Characteristics**

- For general purpose injection molding, pails, toys and housewares.
- Good low temperature impact strength, gloss and excellent toughness.

**Complies with**

- U.S. FDA 21 CFR 177.1520(c)3.2a

Consult the regulations for complete details.

**Additive**

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

**Properties<sup>1</sup>**

Physical	Nominal Value (English)	Unit (English)	Nominal Value (SI)	Unit (SI)	Test Method <sup>2</sup>
Density	0.950	g/cm <sup>3</sup>	0.950	g/cm <sup>3</sup>	ASTM D792
Base Density <sup>3</sup>	0.950	g/cm <sup>3</sup>	0.950	g/cm <sup>3</sup>	Internal Method
Melt Index (190°C/2.16 kg)	12	g/10min	12	g/10min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) 122°F (50°C), 100% Igepal, F50	5.00	hr	5.00	hr	ASTM D1693
<b>Mechanical</b>					
Tensile Strength					ASTM D638
Yield	3400	Psi	23.4	MPa	
Break	2300	Psi	15.9	MPa	
Tensile Elongation					ASTM D638
Yield	6.0	%	6.0	%	
Break	700	%	700	%	
Flexural Modulus – 2% Secant	125000	Psi	862	MPa	ASTM D790B



## Properties (Cont.)

Impact	Nominal Value (English)	Unit (English)	Nominal Value (SI)	Unit (SI)	Test Method
Tensile Impact Strength <sup>4</sup>	132	ft-lb/in <sup>2</sup>	277	kJ/m <sup>2</sup>	ASTM D1822
<b>Hardness</b>					
Durometer Hardness	56		56		ASTM D2240
<b>Thermal</b>					
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed	150	°F	65.6	°C	ASTM D648
Brittleness Temperature	< -105	°F	< -76.1	°C	ASTM D746
Vicat Softening Temperature	260	°F	127	°C	ASTM D1525
Melting Temperature (DSC)	262	°F	128	°C	Internal Method
Peak Crystallization Temperature (DSC)	239	°F	115	°C	Internal Method
<b>Additional Information</b>					
Plaque molded and tested in accordance with ASTM D4976					

4. Type S.

