

DOW™ HDPE DMDA-8920 NT 7

High Density Polyethylene Resin

Overview

- Injection molding
- For injection molded housewares, toys, food containers and pails
- Excellent balance of toughness, stress crack resistance and processability
- Very narrow molecular weight distribution
- Complies with U.S. FDA 21 CFR 177.1520 (c)3.2a
- Complies with U.S. FDA - DMF
- Complies with Canadian HPFB No Objection
- Complies EU, No 10/2011
- Consult the regulations for complete details.

DOW DMDA-8920 NT 7 High Density Polyethylene (HDPE) Resin is produced via UNIPOL™ Process Technology from Dow and is intended for use in a broad range of injection molding applications such as housewares, toys, food containers and pails. This resin has been designed to provide an excellent balance of toughness, environmental stress crack resistance and processability.

Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.954 g/cm ³	0.954 g/cm ³	ASTM D792
Base Density ¹	0.954 g/cm ³	0.954 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	20 g/10 min	20 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
122°F (50°C), 100% Igepal, F50	3.00 hr	3.00 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield	4100 psi	28.3 MPa	
Break	2000 psi	13.8 MPa	
Tensile Elongation			ASTM D638
Yield	7.0 %	7.0 %	
Break	250 %	250 %	
Flexural Modulus - 2% Secant	167000 psi	1150 MPa	ASTM D790B
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Impact Strength ²	20.0 ft-lb/in ²	42.0 kJ/m ²	ASTM D1822
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	57	57	ASTM D2240
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	163 °F	72.8 °C	
Brittleness Temperature	< -105 °F	< -76.1 °C	ASTM D746
Vicat Softening Temperature	261 °F	127 °C	ASTM D1525
Melting Temperature (DSC)	266 °F	130 °C	Dow Method
Peak Crystallization Temperature (DSC)	243 °F	117 °C	Dow Method

Additional Information

Plaque molded and tested in accordance with ASTM D4976.

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 Type S

