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)3.1a
- 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/cm³	0.954	g/cm³	ASTM D792
Base Density	0.954	g/cm³	0.954	g/cm³	Dow Method [1]
Melt Index (190°C/2.16 kg)	20	g/10 min	20	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance					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	20.0	ft·lb/in²	42.0	kJ/m²	ASTM D1822 [2]
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

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