Technical Information

DOW™ HDPE DMDA-8907 NT 7
High Density Polyethylene Resin

Overview

DOW DMDA-8907 NT 7 High Density Polyethylene (HDPE) Resin is produced via UNIPOL™ Process Technology from Dow and is intended for use in injection molding applications such as pails, industrial parts and other shipping containers. This resin has been designed to provide excellent processability for molders and to meet the rigorous performance characteristics of applications requiring stackability, environmental stress crack resistance and impact strength.

- Injection molding
- For injection molded pails, industrial parts and other shipping containers
- Excellent impact strength, stress crack resistance and processability
- Very narrow molecular weight distribution

Complies with:

- U.S. FDA 21 CFR 177.1520 (c)3.2a
- Canadian HPFB No Objection
- EU, No 10/2011
- U.S. USP
- U.S. FDA DMF

Consult the regulations for complete details.

Additive

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

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.952	g/cm³	0.952	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	6.8	g/10 min	6.8	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)					ASTM D1693
122°F (50°C), 100% Igepal, F50	12.0	hr	12.0	hr	
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Strength					ASTM D638
Yield	3900	psi	26.9	MPa	
Break	3300	psi	22.8	MPa	
Tensile Elongation					ASTM D638
Yield	7.0	%	7.0	%	
Break	1100	%	1100	%	
Flexural Modulus - 2% Secant	155000	psi	1070	MPa	ASTM D790B
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Impact Strength [1]	40.0	ft·lb/in²	84.1	kJ/m²	ASTM D1822
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Durometer Hardness (Shore D)	59		59		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	262	°F	128	°C	ASTM D1525
Melting Temperature (DSC)	268	°F	131	°C	Dow Method
Peak Crystallization Temperature (DSC)	244	°F	118	°C	Dow Method

Additional Information

Plaque molded and tested in accordance with ASTM D4976.