



DOW™ HDPE DMDA-8910 NT 7

The Dow Chemical Company - High Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

DOW™ DMDA-8910 NT 7 High Density Polyethylene (HDPE) Resin is produced by the UNIPOL™ Process Technology from Dow and is intended for use in injection molded rigid packaging applications including material handling and industrial container applications. The resin is designed to meet rigorous performance characteristics, including environmental stress crack resistance and impact strength, while maintaining excellent processing characteristics beneficial for molders.

Main Characteristics:

- Injection or Compression Molding
- Designed for caps and closures
- Excellent impact strength, stress crack resistance and processability
- Very narrow molecular weight distribution
- Excellent Organoleptic properties

Complies with:

- U.S. FDA 21 CFR 177.1520(c)3.2a
- Canadian HPFB No Objection

Consult the regulations for complete details.

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Antiblock: No • Processing Aid: No • Slip: No
Agency Ratings	• FDA 21 CFR 177.1520(c) 3.2a • HPFB (Canada) No Objection
Forms	• Pellets

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.947		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	10	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) 122°F, 100% Igepal, F50	12.0	hr	ASTM D1693
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	3500	psi	ASTM D638
Tensile Strength (Break)	2300	psi	ASTM D638
Tensile Elongation (Yield)	9.0	%	ASTM D638
Tensile Elongation (Break)	260	%	ASTM D638
Flexural Modulus			ASTM D790B
1% Secant	145000	psi	
2% Secant	124000	psi	
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength ²	59.0	ft-lb/in ²	ASTM D1822
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	59		ASTM D2240

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Annealed)	149	°F	ASTM D648
Brittleness Temperature	< -105	°F	ASTM D746
Vicat Softening Temperature	254	°F	ASTM D1525
Melting Temperature (DSC)	262	°F	Internal Method
Peak Crystallization Temperature (DSC)	241	°F	Internal Method

Additional Information

Molded and tested in accordance with ASTM D4976.

Notes

¹ Typical properties: these are not to be construed as specifications.

² Type S