



DOW HDPE DMDA-1210 NT 7 High Density Polyethylene Resin

Overview DOW DMDA-1210 High Density Polyethylene (HDPE) Resin is produced by the Unipol™ Process Technology from Dow and is intended for use in injection molded cap and closure applications requiring low organoleptic properties. 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 Molding
- Designed for injection molded caps and closures for the packaging of still water
- Excellent impact strength, stress crack resistance and processability
- Very narrow molecular weight distribution
- Excellent Organoleptic properties for this application

- Complies with U.S. FDA 21 CFR 177.1520(c)3.1 a.
- Europe EU-Directive 2002/72/EC
- Canadian HPFB No Objection (with limitations)
- Consult the regulations for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.952 g/cm ³	0.952 g/cm ³	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 122°F (50°C), 100% Igepal, F50	12.0 hr	12.0 hr	ASTM D1693
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield	3920 psi	27.0 MPa	
Break	3340 psi	23.0 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	40.0 ft·lb/in ²	84.0 kJ/m ²	ASTM D1822 ¹
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 66 psi (0.45 MPa), Unannealed	163 °F	73.0 °C	ASTM D648
Brittleness Temperature	< -105 °F	< -76.0 °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.

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ Type S

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