



DOW™ HDPE DMDA-8007 HEALTH+™ High Density Polyethylene Resin

Overview

Dow HDPE DMDA-8007 HEALTH+™ is a narrow molecular weight distribution high density homopolymer designed to offer excellent stiffness, low warpage, good toughness, and good moldability. The resin is suitable for injection-molded medical devices such as IV kit components and respiratory care as well as caps and closures for pharmaceutical packaging.

Main Characteristics:

- Excellent stiffness
- Low warpage
- Good toughness
- High gloss parts

Complies with:

- U.S. FDA 21CFR 177.1520 (c) 2.2
- EU, No 10/2011
- Canadian HPFB, No Objection
- USP XXIII Class VI
- Drug Master File Listing

Consult the regulations for complete details.

Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.965 g/cm ³	0.965 g/cm ³	ASTM D792
Base Density ¹	0.965 g/cm ³	0.965 g/cm ³	Dow Method
Melt Index			ASTM D1238
190°C/2.16 kg	8.3 g/10 min	8.3 g/10 min	
190°C/21.6 kg	180 g/10 min	180 g/10 min	
Environmental Stress-Cracking Resistance			ASTM D1693
122°F (50°C), 100% Igepal, F50	2.00 hr	2.00 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield	4500 psi	31.0 MPa	
Break	2600 psi	17.9 MPa	
Tensile Elongation			ASTM D638
Yield	6.0 %	6.0 %	
Break	350 %	350 %	
Flexural Modulus - 2% Secant	205000 psi	1410 MPa	ASTM D790B
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Impact Strength ²	80.0 ft·lb/in ²	168 kJ/m ²	ASTM D1822
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	61	61	ASTM D2240
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	183 °F	83.9 °C	
Brittleness Temperature	< -105 °F	< -76.1 °C	ASTM D746
Vicat Softening Temperature	268 °F	131 °C	ASTM D1525
Melting Temperature (DSC)	271 °F	133 °C	Dow Method
Peak Crystallization Temperature (DSC)	248 °F	120 °C	Dow Method

Additional Information

Plaque molded and tested in accordance with ASTM D4976.

