



DOW™ HDPE DMDA-8907 HEALTH+™ High Density Polyethylene Resin

Overview

Dow HDPE DMDA-8907 HEALTH+™ is produced via UNIPOL™ Process Technology from Dow and is intended for use in injection molded medical device applications. This resin has been designed to provide excellent processability to molders and to meet the requirements of devices requiring impact strength and environmental stress crack resistance.

Main Characteristics:

- Good environmental crack resistance
- Excellent toughness
- Gamma stable
- Low extractables

Complies with:

- U.S. FDA 21CFR 177.1520 (c) 3.2a
- 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	0.952 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 (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/in ²	84.1 kJ/m ²	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.

