Technical Data Sheet

DOW™ HDPE DMDA-8940 HEALTH+™ High Density Polyethylene Resin

Overview

DOW™ HDPE DMDA-8940 HEALTH+™ Resin is a narrow molecular weight distribution high density copolymer designed to offer an excellent balance of toughness, environmental stress crack resistance, and processability. The resin is suitable for injection-molded medical devices such as IV kit components and respiratory care. This product can also be used in pharmaceutical packaging including caps and closures.

Main Characteristics:

- Excellent toughness
- Excellent stress crack resistance
- Good processability
- High gloss parts

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

Properties

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method[1]
Density	0.951	g/cm^3	0.951	g/cm^3	ASTM D792
Melt Index (190°C/2.16 kg)	44	g/10 min	44	g/10 min	ASTM D1238
Mechanical					
Tensile Strength					ASTM D638
Yield	3900	psi	26.9	MPa	
Break	3900	psi	26.9	MPa	

1. ASTM: American Society for Testing and Materials

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

Properties (Cont.)

Mechanical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Tensile Elongation					ASTM D638
Yield	5.0	%	5.0	%	
Break	10	%	10	%	
Flexural Modulus - 2% Secant	148000	psi	1020	MPa	ASTM D790B
Impact					
Tensile Impact Strength[2]	40.0	ft-lb/in^2	84.1	kJ/m^2	ASTM D1822
Hardness					
Durometer Hardness (Shore D)	64		64		ASTM D2240
Thermal					
Deflection Temperature Under Load					
66 psi (0.45 MPa), Unannealed	160	°F	71.1	°C	ASTM D648
Brittleness Temperature	< -98.0	°F	< -72.2	°C	ASTM D746
Vicat Softening Temperature	253	°F	123	°C	ASTM D1525
Melting Temperature (DSC)	262	°F	128	°C	Dow Method
Peak Crystallization Temperature (DSC)	241	°F	116	°C	Dow Method
Additional Information					
Plaque molded and tested in accordance with ASTM D4976.					