



DOW™ HDPE DMDA-8940 HEALTH+™

The Dow Chemical Company - High Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

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.

General

Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Antiblock: No	• Processing Aid: No	• Slip: No
Agency Ratings	• DMF Unspecified Rating • EU No 10/2011	• FDA 21 CFR 177.1520(c) 3.2a • HPFB (Canada) No Objection	• USP XXII, Class VI
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.953		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	44	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	3900	psi	ASTM D638
Tensile Strength (Break)	3900	psi	ASTM D638
Tensile Elongation (Yield)	5.0	%	ASTM D638
Tensile Elongation (Break)	10	%	ASTM D638
Flexural Modulus - 2% Secant	148000	psi	ASTM D790B
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength ²	40.0	ft-lb/in ²	ASTM D1822
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	64		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	160	°F	ASTM D648
Brittleness Temperature	< -98.0	°F	ASTM D746

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	253	°F	ASTM D1525
Melting Temperature (DSC)	262	°F	Internal Method
Peak Crystallization Temperature (DSC)	241	°F	Internal Method

Additional Information

Plaque molded and tested in accordance with ASTM D4976.

Notes

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

² Type S