



DOW™ HDPE DMDB-7950 NT 7

The Dow Chemical Company - High Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

- Injection molding
- Roll-out trash carts and other large parts
- Excellent impact strength, stress crack resistance and processability
- Very narrow molecular weight distribution

Complies with:

- U.S. FDA 21 CFR 177.1520 (c) 3.1a
- Canadian HPFB No Objection
- European Commission Regulation (EU) No 10/2011

Consult the regulations for complete details.

DOW DMDB-7950 NT 7 High Density Polyethylene (HDPE) Resin is intended for use in injection molding applications such as roll-out trash carts and other large parts with short molding cycles. It is produced via UNIPOL™ Process Technology from Dow and has been designed to meet the rigorous performance characteristics of impact resistance, environmental stress crack resistance, stiffness, and low warpage, while maintaining excellent moldability.

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Antiblock: No • Processing Aid: No • Slip: No
Agency Ratings	• EU 10/2011 • FDA 21 CFR 177.1520(c) 3.1a • HPFB (Canada) No Objection
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.950		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	5.8	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) 122°F, 100% Igepal, F50	40.0	hr	ASTM D1693
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, Compression Molded)	3600	psi	ASTM D638
Tensile Strength (Break, Compression Molded)	3800	psi	ASTM D638
Tensile Elongation (Yield, Compression Molded)	8.0	%	ASTM D638
Tensile Elongation (Break, Compression Molded)	1200	%	ASTM D638
Flexural Modulus - 2% Secant (Compression Molded)	146000	psi	ASTM D790B
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength ² (Compression Molded)	50.0	ft·lb/in ²	ASTM D1822
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	54		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed, Compression Molded	154	°F	ASTM D648
Brittleness Temperature	< -105	°F	ASTM D746

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	261	°F	ASTM D1525
Melting Temperature (DSC)	266	°F	Internal Method
Peak Crystallization Temperature (DSC)	244	°F	Internal Method

Notes

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

² Type S