



UNIVAL™ DMDB-6200 NT 7 High Density Polyethylene Resin

Overview

Unival™ DMDB-6200 NT 7 High Density Polyethylene (HDPE) Resin is a multipurpose polymer designed for high speed production of blow molded containers used to package household industrial chemicals (e.g., detergents, bleach, fabric softeners), toiletries and cosmetics (e.g. shampoos, creams, lotions, etc.), health and medicinal aids, and food products. In addition, it can be blow molded into other thin walled parts and houseware items, and also can be extruded into profiles.

Main Characteristics

- Excellent stress crack resistance and rigidity
- High impact strength
- Moderate swell
- High melt strength

Complies with:

- U.S. FDA 21 CFR 177.1520(c) 3.2a
- U.S. FDA-DMF
- Canadian HPFB No Objection (with Limitations)
- EU, No 10/2011

Consult the regulations for complete details.

Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.953 g/cm ³	0.953 g/cm ³	ASTM D792
Base Density ¹	0.953 g/cm ³	0.953 g/cm ³	Dow Method
Melt Index			ASTM D1238
190°C/2.16 kg	0.38 g/10 min	0.38 g/10 min	
190°C/21.6 kg	33 g/10 min	33 g/10 min	
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693B
122°F (50°C), 100% Igepal, F50	80.0 hr	80.0 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield	3900 psi	26.9 MPa	
Break	4500 psi	31.0 MPa	
Tensile Elongation			ASTM D638
Yield	7.0 %	7.0 %	
Break	1000 %	1000 %	
Flexural Modulus - 2% Secant	145000 psi	1000 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	163 °F	72.8 °C	
Brittleness Temperature	< -105 °F	< -76.1 °C	Dow Method
Vicat Softening Temperature	264 °F	129 °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 D 4976.

Notes

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

¹ Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

² Type S

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