UNIVAL™ DMDB-6200 NT 7

The Dow Chemical Company - High Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

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.

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	
Forms	• Pellets		
Processing Method	• Blow Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.955		ASTM D792
Melt Mass-Flow Rate			ASTM D1238
190°C/2.16 kg	0.38	g/10 min	
190°C/21.6 kg	33	g/10 min	
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693B
122°F, 100% Igepal, F50	80.0	hr	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield)	3900	psi	ASTM D638
Tensile Strength (Break)	4500	psi	ASTM D638
Tensile Elongation (Yield)	7.0	%	ASTM D638
Tensile Elongation (Break)	1000	%	ASTM D638
Flexural Modulus - 2% Secant	145000	psi	ASTM D790B
Impact	**Nominal Value**	**Unit**	**Test Method**
Tensile Impact Strength [2]	80.0	ft·lb/in²	ASTM D1822
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	61		ASTM D2240

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	163	°F	ASTM D648
Brittleness Temperature	< -105	°F	Internal Method
Vicat Softening Temperature	264	°F	ASTM D1525
Melting Temperature (DSC)	268	°F	Internal Method
Peak Crystallization Temperature (DSC)	244	°F	Internal Method

Additional Information

Plaque molded and tested in accordance with ASTM D 4976.

Notes

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

[2] Type S