UNIVAL™ DMDA-6230 NT 7

The Dow Chemical Company - High Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

- Outstanding environmental stress crack resistance
- High impact strength
- Good extrusion characteristics

Complies with:

- U.S. FDA 21 CFR 177.1520 (c) 3.2a
- U.S. FDA-DMF
- U.S. USP Class VI
- Canadian HPFB No Objection (With Limitations)
- Underwriters Laboratories, Inc.

Consult the regulations for complete details.

UNIVAL™ DMDA-6230 NT 7 High Density Polyethylene (HDPE) Resin is specifically designed for use in either intermittent or continuous blow molding equipment to produce containers up to 20 gallons in size - applications that require the combination of outstanding environmental stress crack resistance (ESCR) and, high impact strength. UNIVAL DMDA- 6230 NT 7 HDPE resin is also considered a multipurpose blow molding resin designed for the high speed production of blow molded containers used for packaging household industrial chemicals (e.g., detergents, bleach, fabric softeners), toiletries and cosmetics (e.g., shampoos, creams, lotions, etc.), health and medicinal aids. In addition, it can be blow molded into other thin walled parts and houseware items, and also can be extruded into profiles or sheets.

General			
Material Status	• Commercial: Active		
Availability	• Latin America	• North America	
Additive	• Antiblock: No	• Processing Aid: No	• Slip: No
Agency Ratings	• DMF Unspecified Rating • FDA 21 CFR 177.1520(c) 3.2a	• HPFB (Canada) No Objection [1] • UL 94	• USP Class VI
Forms	• Pellets		
Processing Method	• Blow Molding		

ASTM & ISO Properties [2]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.951		ASTM D792
Melt Mass-Flow Rate			ASTM D1238
190°C/2.16 kg	0.25	g/10 min	
190°C/21.6 kg	25	g/10 min	
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
122°F, 100% Igepal, F50	180	hr	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield)	3400	psi	ASTM D638
Tensile Strength (Break)	4500	psi	ASTM D638
Tensile Elongation (Yield)	8.0	%	ASTM D638
Tensile Elongation (Break)	900	%	ASTM D638
Flexural Modulus - 2% Secant	132000	psi	ASTM D790B
Impact	**Nominal Value**	**Unit**	**Test Method**
Tensile Impact Strength [3]	100	ft·lb/in²	ASTM D1822

UNIVAL™ DMDA-6230 NT 7

The Dow Chemical Company - High Density Polyethylene Resin

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	57		ASTM D2240
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	144	°F	ASTM D648
Brittleness Temperature	< -105	°F	ASTM D746
Vicat Softening Temperature	261	°F	ASTM D1525
Melting Temperature (DSC)	266	°F	Internal Method
Peak Crystallization Temperature (DSC)	244	°F	Internal Method

Additional Information

Plaque molded and tested in accordance with ASTM D4976.

Notes

[1] With limitations

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

[3] Type S