Technical Data Sheet

UNIVAL™ DMDA-6230 NT 7 High Density Polyethylene Resin

Description

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.

Main Characteristics

- 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. (ULI)
- USP 661.1

Consult the regulations for complete details.

Additive

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

Properties[1]

Physical	Nominal Value	Unit	Test Method
Density	0.949	g/cm^3	ASTM D792
Melt Index			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
122ºF (50ºC), 100% Igepal, F50	180	hr	

1. Typical properties: these are not to be construed as specifications. Users should confirm results by their own tests.
2. ASTM: American Society for Testing and Materials

Properties (Cont.)

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Yield	23.4	MPa	
Break	31.0	MPa	
Tensile Elongation			ASTM D638
Yield	8.0	%	
Break	900	%	
Flexural Modulus – 2% Secant	910	MPa	ASTM D790B
Impact			
Tensile Impact Strength[3]	210	kJ/m^2	ASTM D1822
Hardness			
Durometer Hardness (Shore D)	57		ASTM D2240
Thermal			
Defflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	62.0	°C	
Brittleness Temperature	< -76.0	°C	ASTM D746
Vicat Softening Temperature	127	°C	ASTM D1525
Melting Temperature (DSC)	130	°C	Internal Method
Peak Crystallization Temperature (DSC)	118	°C	Internal Method
Additional Information			
Plaque molded and tested in accordance with ASTM D4976			

3. Type S

Product Stewardship

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Medical Applications Policy

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b. use in cardiac prosthetic devices regardless of the length of time involved (“cardiac prosthetic devices” include, but are not limited to, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass-assisted devices);
c. use as a critical component in medical devices that support or sustain human life; or
d. use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction.
e. use as an ingredient of a pharmaceutical injectable application

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