



UNIVAL™ DMDA-6400 NT 7

The Dow Chemical Company - High Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

UNIVAL™ DMDA-6400 NT 7 is a multi-purpose HDPE homopolymer designed for producing blow molded containers used to package dairy, water, and fruit drinks. The product offers high stiffness, excellent taste and odor characteristics, and produces very white bottles. The resin can be blow molded or thermoformed into other thin-walled parts for food packaging and houseware items.

Main Characteristics:

- Maximum rigidity
- High impact strength
- Top Load strength
- Moderate Swell

Complies with:

- U.S. FDA 21 CFR 177.1520(c)2.2.
- EU, No 10/2011
- CANADIAN HPFB NO OBJECTION (With Limitations)
- Consult the regulations for complete details.

General

Material Status	• Commercial: Active		
Availability	• Latin America	• North America	
Additive	• Antiblock: No	• Processing Aid: No	• Slip: No
Agency Ratings	• EU No 10/2011	• FDA 21 CFR 177.1520(c) 2.2	• HPFB (Canada) No Objection ¹
Forms	• Pellets		

ASTM & ISO Properties²

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.963		ASTM D792
Melt Mass-Flow Rate			ASTM D1238
190°C/2.16 kg	0.80	g/10 min	
190°C/21.6 kg	57	g/10 min	
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
122°F, 100% Igepal, F50	20.0	hr	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	4640	psi	ASTM D638
Tensile Strength (Break)	3480	psi	ASTM D638
Tensile Elongation (Yield)	7.0	%	ASTM D638
Tensile Elongation (Break)	1000	%	ASTM D638
Flexural Modulus - 2% Secant	188000	psi	ASTM D790B
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength ³	40.0	ft-lb/in ²	ASTM D1822
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	66		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	169	°F	ASTM D648
Brittleness Temperature	< -105	°F	ASTM D746

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	268	°F	ASTM D1525
Melting Temperature (DSC)	271	°F	Internal Method
Peak Crystallization Temperature (DSC)	248	°F	Internal Method

Additional Information

Plaque molded and tested in accordance with ASTM D 4976.

Notes

¹ With limitations

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

³ Type S