



UNIVAL™ DMDC-6150 NT 7

The Dow Chemical Company - High Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

UNIVAL™ DMDC-6150 NT 7 High Density Polyethylene (HDPE) Resin is a polymer with broad molecular weight distribution and high molecular weight. This product provides an excellent combination of extrudability and parison stability, which contribute to uniform wall thickness in large parts. UNIVAL DMDC-6150 NT 7 HDPE resin is ideal for blow molding containers such as the 5-55 gallon (19-212 liter) closed head shipping containers and other similar parts. The broad distribution also provides outstanding environmental stress crack resistance (ESCR) at a good rigidity. Because of these characteristics, a wide variety of products, such as industrial chemicals, latex paints, printing inks, foodstuffs, adhesives, and other chemical specialties may be packaged in containers produced from this resin. The smooth surface of molded parts is readily treated and printed for high quality applications.

Main Characteristics:

- Excellent environmental stress crack resistance
- Excellent parison melt strength/low sag
- Good extrudability/processability
- Good rigidity

Complies with:

- U.S. FDA 21 CFR 177.1520 (c) 3.2a
- Canadian HPFB No Objection (With Limitations)
- European Commission Regulation (EU) No 10/2011

Consult the regulations for complete details.

General

Material Status	• Commercial: Active		
Availability	• Latin America	• North America	
Agency Ratings	• EU 2011/10/EC	• FDA 21 CFR 177.1520(c) 3.2a	• HPFB (Canada) No Objection ¹
Forms	• Pellets		
Processing Method	• Blow Molding		

ASTM & ISO Properties ²

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.956		ASTM D792
Melt Mass-Flow Rate (190°C/21.6 kg)	5.3	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) 122°F, 100% Igepal, F50	> 1000	hr	ASTM D1693
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	3800	psi	ASTM D638
Tensile Strength (Break)	4500	psi	ASTM D638
Tensile Elongation (Break)	800	%	ASTM D638
Flexural Modulus - 2% Secant	170000	psi	ASTM D790B
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength ³	180	ft-lb/in ²	ASTM D1822
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	62		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	160	°F	ASTM D648
Brittleness Temperature	< -130	°F	ASTM D746

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	266	°F	ASTM D1525
Melting Temperature (DSC)	270	°F	Internal Method
Peak Crystallization Temperature (DSC)	248	°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