Technical Information

UNIVAL™ DMDA-6147 NT 7
High Density Polyethylene Resin

Overview

- Outstanding 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
- Complies with CANADIAN HPFB NO OBJECTION (WITH LIMITATIONS)
- Consult the regulations for complete details.

UNIVAL™ DMDA-6147 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 DMDA-6147 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.

Additive

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

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.948	g/cm³	0.948	g/cm³	ASTM D792
Melt Index (190°C/21.6 kg)	10	g/10 min	10	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)					ASTM D1693
122°F (50°C), 100% Igepal, F50	> 1500	hr	> 1500	hr	
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Strength					ASTM D638
Yield	3300	psi	22.8	MPa	
Break	5300	psi	36.5	MPa	
Tensile Elongation					ASTM D638
Yield	6.0	%	6.0	%	
Break	900	%	900	%	
Flexural Modulus - 2% Secant	124000	psi	855	MPa	ASTM D790B
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Impact Strength [1]	220	ft·lb/in²	462	kJ/m²	ASTM D1822
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Durometer Hardness (Shore D)	57		57		ASTM D2240
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					ASTM D648
66 psi (0.45 MPa), Unannealed	151	°F	66.0	°C	
Brittleness Temperature	< -105	°F	< -76.1	°C	ASTM D746
Vicat Softening Temperature	261	°F	127	°C	ASTM D1525
Melting Temperature (DSC)	266	°F	130	°C	Dow Method
Peak Crystallization Temperature (DSC)	237	°F	114	°C	Dow Method
Additional Information					
Plaque molded and tested in accordance with ASTM D4976.					