



UNIVAL™ DMDC-6145 NT 7

The Dow Chemical Company - High Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

- 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™ DMDC-6145 NT 7 High Density Polyethylene (HDPE) Resin provides good parison stability, which contributes to uniform wall thickness in large parts, making it ideal for blow molded containers ranging from, 5-15 gallon (9-57 liter) tight-head pails to 30-gallon (114 liter) drums. Containers molded from this resin offer outstanding environmental stress cracking resistance (ESCR) and excellent rigidity. The appearance of finished blow molded parts made from this resin is excellent.

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Antiblock: No • Processing Aid: No • Slip: No
Agency Ratings	• 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	0.953		ASTM D792
Melt Mass-Flow Rate (190°C/21.6 kg)	14	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) 122°F, 100% Igepal, F50	> 1500	hr	ASTM D1693
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	3700	psi	ASTM D638
Tensile Strength (Break)	5000	psi	ASTM D638
Tensile Elongation (Yield)	7.0	%	ASTM D638
Tensile Elongation (Break)	1000	%	ASTM D638
Flexural Modulus - 2% Secant	131000	psi	ASTM D790B
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength ³	120	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)	149	°F	ASTM D648
Brittleness Temperature	< -105	°F	ASTM D746
Vicat Softening Temperature	264	°F	ASTM D1525
Melting Temperature (DSC)	268	°F	Internal Method
Peak Crystallization Temperature (DSC)	243	°F	Internal Method

UNIVAL™ DMDC-6145 NT 7

The Dow Chemical Company - High Density Polyethylene Resin

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