



CONTINUUM™ DMDC-1270 NT 7 High Density Polyethylene Resin

Overview

CONTINUUM™ DMDC-1270 NT 7 High Density Polyethylene Resin (HDPE) is intended for use in both compression and injection molded closure applications including carbonated soft drink and hot fill closures. This resin has been designed to meet demanding performance requirements, especially in the areas of environmental stress crack resistance, stiffness, impact strength, and sensory, while maintaining good processing characteristics beneficial to molders.

Main Characteristics:

- Excellent ESCR, Stiffness, and Impact Strength
- Excellent Sensory Properties
- Excellent Processing Characteristics
- Contains Slip Additive

Complies with

- U.S. FDA 21 CFR 177.1520(c)3.2a
- Canadian HPFB No Objection
- Europe Commission Regulation (EU) No 10/2011
- Consult the regulations for complete details.

Additive

- Antiblock: No
- Slip: 1000 ppm
- Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.955 g/cm ³	0.955 g/cm ³	ASTM D792
Base Density ¹	0.955 g/cm ³	0.955 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	2.5 g/10 min	2.5 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
122°F (50°C), 10% Igepal, F50	100 hr	100 hr	
122°F (50°C), 100% Igepal, F50	> 1000 hr	> 1000 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield	3920 psi	27.0 MPa	
Break	3770 psi	26.0 MPa	
Tensile Elongation			ASTM D638
Yield	9.0 %	9.0 %	
Break	920 %	920 %	
Flexural Modulus - 2% Secant	150000 psi	1030 MPa	ASTM D790B
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	58	58	ASTM D2240
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	163 °F	73.0 °C	
Vicat Softening Temperature	264 °F	129 °C	ASTM D1525
Melting Temperature (DSC)	268 °F	131 °C	Dow Method
Peak Crystallization Temperature (DSC)	244 °F	118 °C	Dow Method

Additional Information

Plaque molded and tested in accordance with ASTM D 4976.

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

