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/cm³	0.955	g/cm³	ASTM D792
Base Density [1]	0.955	g/cm³	0.955	g/cm³	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.

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