Technical Data Sheet

DOW™ HDPE DMDC-1210 NT 7 High Density Polyethylene Resin

Overview

DOW™ DMDC-1210 NT 7 High Density Polyethylene Resin is intended for use in both compression and injection molded closure applications. This resin has been designed to meet demanding performance requirements, especially in the areas of stiffness, impact strength, and sensory, while maintaining good processing characteristics beneficial to molders. Typical applications include injection molded closures for water bottles, where minimizing the contribution of the package to the taste of the product is a requirement.

Main Characteristics:

- Excellent stiffness and impact strength
- Excellent organoleptic properties
- Excellent processing characteristics

Complies with:

- U.S. FDA 21 CFR 177.1520(c)3.1a.
- Canadian HPFB No Objection
- EU, No 10/2011
- Consult the regulations for complete details

Additive

- Antiblock: No
- Slip: No
- Processing aid: No

Properties

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method[1]
Density	0.952	g/cm^3	0.952	g/cm^3	ASTM D792
Melt Index (190°C12.16 kg)	10	g/10 min	10	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)					ASTM D1693
122°F (50°C), 10% Igepal, F50	12.0	hr	12.0	hr	
122°F (50°C), 10% Igepal, F50	22.0	hr	22.0	hr	
Mechanical					
Tensile Strength					ASTM D638
Yield	3960	psi	27.3	MPa	
Break	2970	psi	20.5	MPa	

1. ASTM: American Society for Testing and Materials

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

Properties (Cont.)

Mechanical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Tensile Elongation					ASTM D638
Yield	13	%	13	%	
Break	1500	%	1500	%	
Flexural Modulus - 2% Secant	152000	psi	1050	MPa	ASTM D790
Hardness					
Durometer Hardness (Shore D)	59		59		ASTM D2240
Thermal					
Vicat Softening Temperature	257	°F	125	°C	ASTM D1525
Melting Temperature (DSC)	266	°F	130	°C	Dow Method
Additional Information					
Plaque molded and tested in accordance with ASTM D 4976.					

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