Technical Data Sheet

CONTINUUM™ DMDF-6620 NT 7 HEALTH+™ Bimodal

Bimodal Polyethylene Resin

Description

CONTINUUM™ DMDF-6620 NT 7 HEALTH+™ Bimodal High Density Polyethylene Resin is produced by UNIPOL™ II process technology. This resin is a high stiffness resin with superior top-load performance in conjunction with excellent environmental stress crack resistance and excellent gas barrier properties.

CONTINUUM™ DMDF-6620 NT 7 HEALTH+™ Bimodal is specifically designed for use in multiple types of blow molding processes, producing containers up to 20 gallons in size, which require superior top-load combined with excellent environmental stress crack resistance and gas barrier properties. This product offers excellent processability with low plate out properties. This product is especially well suited for containers used to package household health care and pharmaceutical products.

Main Characteristics

- High stiffness for superior top-load performance
- Excellent environmental stress crack resistance
- Excellent gas barrier properties
- High impact strength
- Good extrusion characteristics

Complies with

- U.S. FDA 21 CFR 177.1520(c)3.2a
- U.S. USP Class VI
- EU, No 10/2011
- U.S. FDA-DMF
- Canadian HPFB No Objection

Consult the regulations for complete details.

Additive

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

Properties[1]

Physical	Nominal Value	Unit	Test Method[2]
Density	0.960	g/cm³	ASTM D792
Base Density[3]	0.958	g/cm³	Internal Method
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	0.28	g/10 min	
190°C/21.6 kg	27	g/10 min	

1. Typical properties: these are not to be construed as specifications. Users should confirm results by their own tests.
2. ASTM: American Society for Testing and Materials
3. 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.

Properties (Cont.)

Physical	Nominal Value	Unit	Test Method
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
122°F (50ºC), 10% Igepal, F50	220	hr	
122°F (50ºC), 100% Igepal, F50	> 1100	hr	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			ASTM D638
Yield	28.0	MPa	
Break	18.0	MPa	
Tensile Elongation			ASTM D638
Yield	8.0	%	
Break	670	%	
Flexural Modulus – 2% Secant	1170	MPa	ASTM D790B
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	59		ASTM D2240
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	82.0	°C	
Brittleness Temperature	-60.0	°C	ASTM D746
Vicat Softening Temperature	131	°C	ASTM D1525
Melting Temperature (DSC)	133	°C	Internal Method
Peak Crystallization Temperature (DSC)	121	°C	Internal Method

Additional Information

Plaque molded and tested in accordance with ASTM D4967.

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Medical Applications Policy (Cont.)

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