Borealis Borstar® HE 6068 Natural Bimodal HDPE with very low shrinkage for Submarine and Fiber Optical Cables

Category : Polymer , Thermoplastic , Polyethylene (PE) , HDPE

Material Notes:

Borstar® HE6068 is a natural, UV-stabilized, colorable, bimodal high density (HD) jacketing compound, which is produced with the Borealis proprietary Borstar® bimodal process technology. Borstar® technology allows the manufacturing of polymers outside the traditional MFR and density range making it possible to optimize processability, reduce shrinkage and yet provide excellent physical toughness and environmental stress crack resistance (ESCR). Borstar® HE6068 contains a well dispersed UV-stabilizer in sufficient amount providing a measure of weathering resistance. Applications: Borstar® HE6068 is designed for Submarine and fibre optical cables Borstar® HE6068 offers substantially reduced shrinkage which helps to maintain low signal attenuation for fibre optic communication cables and low jacket retraction for energy cables in combination with excellent mechanical and barrier properties. Borstar® HE6068 offers a balance of properties giving advantages in manufacturing, installation and lifetime performance of communication and energy cables. Specifications Borstar® HE6068 meets the applicable requirements as below when processed using sound extrusion practice and testing procedure: ASTM D 1248 Type III, Class A, Category 3, Grade E8, E9, J4, BS 6234: Type H2, TS2, DIN 57818/VDE 0818, HD 620 S1, Part 1, table 4B, DMP 5, 13, 16, IEC 60502, Type ST7, IEC 60840, Type ST7, and ISO 1872-PE, KHLN, 45 D-022.Information provided by Borealis AG

Order this product through the following link:
http://www.lookpolymers.com/polymer_Borealis-Borstar-HE-6068-Natural-Bimodal-HDPE-with-very-low-shrinkage-for-Submarine-and-Fiber-Optical-Cables.php

Physical Properties	Metric	English	Comments
Density	0.944 g/cc	0.0341 lb/in³	ISO 1183/ISO 1872-2
Environmental Stress Crack Resistance	>= 5.0 hour @Temperature 50.0 °C	>= 5.0 hour @Temperature 122 °F	Igepal 10%;F0; IEC 60811-4-1/B
Melt Flow	1.7 g/10 min @Load 2.16 kg, Temperature 190 °C	1.7 g/10 min @Load 4.76 lb, Temperature 374 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	58	58	3s; ISO 868
	61	61	1s; ISO 868
Tensile Strength, Yield	31.0 MPa	4500 psi	50mm/min; ISO 527
Elongation at Break	900 %	900 %	50mm/min; ISO 527
Flexural Modulus	0.850 GPa	123 ksi	ASTM D790

Thermal Properties	Metric	English	Comments
Brittleness Temperature	<= -76.0 °C	<= -105 °F	ASTM D746

Thermal Properties	Metric	English	Comments

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+6 ohm-cm	1.00e+6 ohm-cm	DC; IEC 60093
Dielectric Strength	70.0 kV/mm	1780 kV/in	IEC 60243

Processing Properties	Metric	English	Comments
Processing Temperature	90.0 °C	194 °F	preheating temperature
Melt Temperature	180 - 190 °C	356 - 374 °F	
Die Cooling Temperature	60.0 °C	140 °F	cooling water

Descriptive Properties	Value	Comments
High Temperature Pressure Test, %	< 10%	115°C; 6 hours; IEC 60811-3-1

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