Borstar® HE6067

High Density Polyethylene

Borealis AG

Message:

Borstar HE6067 is a black 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 with excellent physical toughness and environmental stress crack resistance (ESCR) properties.
Borstar HE6067 contains 2.5% well-dispersed carbon black in order to ensure excellent weathering resistance.
Borstar HE6067 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 HE6067 offers a balance of properties giving advantages in manufacturing, installation and lifetime performance of communication and energy cables.
Borstar HE6067 meets the applicable requirements as below when processes using sound extrusion practice and testing procedure:
ASTM D 1248 Type III, Class C, Category 3, Grade J4, E8, E9, W8
BS 6234: Type H2C, TS2
DIN 57818/VDE 0818
DIN VDE 0207, Type 2YM3
HD 620 S1, Part 1, table 4B, DMP 2, 8-12, 14, 15
IEC 60502, Type ST7
IEC 60708
IEC 60840, ST7
ISO 1872-PE, KCHL, 40 D-022

General Information	
Additive	Carbon black (3%)
Features	Moisture resistance
	High ESCR (Stress Cracking Resistance)
	Good UV resistance
	Workability, good
	Good wear resistance
	Scratch resistance
	Good weather resistance
	Heat resistance, high
	Good toughness
	Low shrinkage
	High hardness
Uses	Communication Cable Jacketing
	Cable sheath
	Wire and cable applications
Agency Ratings	DIN VDE 0207 Type 2YM3
	HD 620 S1 Part 1, table 4B, DMP 2, 8-12, 14, 15
	IEC 60502 Type ST7
	IEC 60708
	IEC 60840 Type ST7

Appearance	Black		
Forms	Particles		
Processing Method	Extrusion		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density			ISO 1183
-- [1]	0.954	g/cm³	ISO 1183
Matrix resin [2]	0.942	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.7	g/10 min	ISO 1133
Environmental Stress-Cracking Resistance [3] (50°C, 10% Igepal, F0)	> 5000	hr	IEC 60811-4-1/B
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			
Shaw D, 1 sec	61		ISO 868
Shaw D, 3 seconds	58		DIN 53505
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (Yield)	29.0	MPa	ISO 527-2/50
Tensile Strain (Break)	900	%	ISO 527-2/50
Flexural Modulus	900	MPa	ASTM D790
Thermal	**Nominal Value**	**Unit**	**Test Method**
Brittleness Temperature	< -76.0	°C	ASTM D746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity [4]	1.0E+16	ohms·cm	IEC 60093
Dielectric Strength	20	kV/mm	IEC 60243-1
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Pressure Test [5] (115°C)		%	IEC 60811-3-1
Extrusion	**Nominal Value**	**Unit**	
Drying Temperature	< 90.0	°C	
Melt Temperature	180 - 190	°C	
Extrusion instructions			
Preheating: < 90 °CCooling water: 60 °C			
NOTE			
1.	Compound		
2.	ISO 1872-2		
3.	No crack		
4.	Compound		
5.	at high temperature, 6 hrs		

Recommended distributors for this material

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