

# Borstar® HE6068

High Density Polyethylene

Borealis AG

## Message:

Borstar HE6068 is a natural, UV-stabilised, colourable, 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 with excellent physical toughness and environmental stress crack resistance (ESCR) properties.

Borstar HE6068 contains a well dispersed UV-stabiliser in sufficient amount to ensure excellent weathering resistance.

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.

Borstar HE6068 meets the applicable requirements as below when processes 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, ST7

ISO 1872-PE, KHLN, 45 D-022

General Information	
Additive	UV stabilizer
Features	Moisture resistance
	High ESCR (Stress Cracking Resistance)
	Good UV resistance
	Workability, good
	Good coloring
	Good wear resistance
	Scratch resistance
	Good weather resistance
	Good toughness
	Low shrinkage
	High hardness
Uses	Marine cable sheath
	Cable sheath
	Electrical wire sheath material
	Wire and cable applications
	Optical cable insulation material
Agency Ratings	ASTM D 1248, III, Class A, Cat. 3 Grade E8, E9, J4
	HD 620 S1 Part 1, table 4B, DMP 5, 13, 16
	IEC 60502 Type ST7
	IEC 60840 Type ST7

Appearance	Natural color		
Forms	Particles		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density <sup>1</sup>	0.944	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.7	g/10 min	ISO 1133
Environmental Stress-Cracking Resistance (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)	31.0	MPa	ISO 527-2/50
Tensile Strain (Break)	900	%	ISO 527-2/50
Flexural Modulus	850	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -76.0	°C	ASTM D746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity <sup>2</sup>	1.0E+16	ohms·cm	IEC 60093
Dielectric Strength	70	kV/mm	IEC 60243-1
Additional Information	Nominal Value	Unit	Test Method
Pressure Test <sup>3</sup> (115°C)		%	IEC 60811-3-1
Extrusion	Nominal Value	Unit	
Drying Temperature	< 90.0	°C	
Melt Temperature	180 - 190	°C	
Extrusion instructions			
Preheating: 90°C Cooling water: 60°C			
NOTE			
1.	Compound, ISO 1872-2		
2.	Compound		
3.	at high temperature, 6 hrs		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

**Susheng Import & Export Trading Co.,Ltd.**

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: [sales@su-jiao.com](mailto:sales@su-jiao.com)

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

