

Borstar® HE6062

High Density Polyethylene

Borealis AG

Message:

Borstar HE6062 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 provide excellent physical toughness and environmental stress crack resistance (ESCR).

Borstar HE6062 contains 2.5% well-dispersed carbon black in order to ensure excellent weathering resistance.

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
	Good toughness
	Low shrinkage
	High hardness
Uses	Communication Cable Jacketing
	Cable sheath
	Wire and cable applications
Agency Ratings	ASTM D 1248, III, Class C, Cat. 4 Grade E8, E9, J4, W8,9
	DIN VDE 0207 Type 2YM3
	DIN VDE 0818
	EN 187105
	EN 50290-2-24
	HD 603 S1 DMP 1, 2, 5, 7, 8
	HD 620 S2 Part 1, table 4B, DMP 2, 8-12, 14-15, 17
	HD 632 S1 ST7
	IEC 60502-2 Type ST7
	IEC 60708
	IEC 60794
	IEC 60840 Type ST7
	ISO 1872 PE KCHL 45D006
	UL I oil grade

UL II Oil Rating

Appearance	Black		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density			ISO 1183
-- ¹	0.946	g/cm ³	ISO 1183
-- ²	0.958	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	0.50	g/10 min	ISO 1133
190°C/5.0 kg	2.0	g/10 min	ISO 1133
Environmental Stress-Cracking Resistance ³ (Condition B, 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	60		DIN 53505
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield)	33.0	MPa	ISO 527-2/50
Tensile Strain (Break)	1000	%	ISO 527-2/50
Flexural Modulus	1000	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -76.0	°C	ASTM D746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Dielectric Strength	20	kV/mm	IEC 60243-1
Additional Information	Nominal Value	Unit	Test Method
Pressure Test ⁴ (115°C)		%	IEC 60811-3-1
Extrusion	Nominal Value	Unit	
Melt Temperature	180 - 190	°C	
Extrusion instructions			
Preheating: 90°C Cooling water: 60°C			
NOTE			
1.	Base Resin		
2.	Compound		
3.	No crack		
4.	at high temperature, 6 hrs		

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