

Borstar® ME6053

Medium Density Polyethylene

Borealis AG

Message:

Borstar ME6053 is a natural, UV stabilised, colourable, medium density (MD) 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 ME6053 contains a well dispersed UV-stabiliser in sufficient amount providing a measure of weathering resistance. In order to fully utilise the unique low shrink properties of Borstar ME6053 we recommend the use of non-warping colour masterbatches.

Borstar ME6053 is designed for:

Jacket for energy and communication cables

Borstar ME6053 offers a balance of properties giving advantages in manufacturing, installation and lifetime performance of communication and energy cables.

Borstar ME6053 meets the applicable requirements as below when processed using sound extrusion practice and testing procedure:

ASTM D 1248 Type II, Class A, Category 4, Grade E8, E9, J4

BS 6234: Type 03, TS2

DIN 57818/VDE 0818

EN 50290-2-24

HD 620 S1, Part 1, table 4B, DMP 5, 13, 16

IEC 60502, Type ST7

IEC 60840, Type ST7

ISO 1872-PE, KHLN, 33 D-006

NF C32-060

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	Communication Cable Jacketing
	Cable sheath
	Cable sheath
	Wire and cable applications
Agency Ratings	ASTM D 1248, II, Class A, Cat. 4 E8, E9, J4
	BS 6234 Type 03 TS2

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HD 620 S1 Part 1, Table 4B, DMP 5, 13, 16

IEC 60502 Type ST7

IEC 60840 Type ST7

NF C 32-060

Appearance	Natural color		
Forms	Particles		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	0.936	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	0.70	g/10 min	ISO 1133
190°C/5.0 kg	3.0	g/10 min	ISO 1133
Environmental Stress-Cracking Resistance ¹ (50°C, 10% Igepal, F0)	> 5000	hr	IEC 60811-4-1/B
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			
Shaw D, 1 sec	54		ISO 868
Shaw D, 3 seconds	53		DIN 53505
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield)	32.0	MPa	ISO 527-2/50
Tensile Strain (Break)	800	%	ISO 527-2/50
Flexural Modulus	600	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -76.0	°C	ASTM D746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity ²	1.0E+16	ohms·cm	IEC 60093
Dielectric Strength	20	kV/mm	IEC 60243-1
Additional Information	Nominal Value	Unit	Test Method
Pressure Test ³ (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.	No crack		
2.	Compound		
3.	at high temperature, 6 hrs		

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