

Borealis LE6022

Low Density Polyethylene

Borealis AG

Message:

LE6022 is a black low density copolymer modified polyethylene compound. It is characterized by excellent stress crack resistance and mechanical properties and low temperature performance in combination with good extrudability. LE6022 contains 2,5% well dispersed funace black in order to ensure excellent weathering resistance.

Applications

LE6022 is designed for jacketing of communication cables.

Cables manufactured with LE6022 using sound extrusion practice normally comply with the following cable product standards:

IEC 60502, Part 2, Type ST3

IEC 60708

IEC 60840, Type ST3

HD 620 S2, Part 1, table 4B, DMP 17

General Information			
Features	Copolymer		
	Good Surface Finish		
	Good Weather Resistance		
	High ESCR (Stress Crack Resist.)		
	Low Density		
Uses	Cable Jacketing		
Agency Ratings	ASTM D 1248, I, Class C, Cat. 5, Grade E5		
	ASTM D 1248, I, Class C, Cat. 5, Grade J3		
	ASTM D 1248, I, Class C, Cat. 5, Grade W2-4		
	BS 6234 Type 03C, TS1		
	BT M 132		
	DIN VDE 0207 Type 2YM2		
	EN 50290-2-24		
	HD 620 S1, Part 1, table 4B, DMP 17		
	IEC 60502 Type ST3		
	IEC 60708		
	IEC 60840 Type ST3		
	ISO 1872 PE KCHL 18D003		
	MIL L-P-390C, Type III, Class L, Grade 2, Cat. 5		
	MIL L-P-390C, Type III, Class L, Grade 3, Cat. 5		
	MIL L-P-390C, Type III, Class L, Grade 4, Cat. 5		
	NF C 32-060		
Forms	Granules		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method

Density			ISO 1183
-- ¹	0.931	g/cm ³	
-- ²	0.918	g/cm ³	
Apparent Density	0.50 to 0.60	g/cm ³	
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.20	g/10 min	ISO 1133
Environmental Stress-Cracking Resistance (50°C, 10% Igepal, F20)	> 1000	hr	IEC 60811-4-1
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 1 sec)	50		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield)	> 15.0	MPa	ISO 527-2/50
Tensile Strain (Break)	> 600	%	ISO 527-2/50
Flexural Modulus	250	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
Electric Strength	20	kV/mm	IEC 60243-1
Dielectric Constant (1 MHz)	2.50		IEC 60250
Dissipation Factor (1 MHz)	6.0E-3		IEC 60250
Extrusion	Nominal Value	Unit	
Melt Temperature	200 to 210	°C	
NOTE			
1.	Compound		
2.	Base Resin		

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

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

