Polyethylene

Borlink™ LE0500

Crosslinkable Semiconductive Compound

Description

Borlink LE0500 is a Supersmooth crosslinkable black polyethylene compound, specially designed for semiconductive conductor screen and bonded insulation screen of energy cables.

Applications

Borlink LE0500 is intended for semiconductive shielding of XLPE extra high voltage (EHV) cables.

Specifications

Borlink LE0500 meets the applicable requirements as below when processed using sound extrusion practices and testing procedures

AEIC CS8
AEIC CS9
BS 6622
Cenelec HD 620 S1
Cenelec HD 632 S1
DIN VDE 0276-620
DIN VDE 0276-632
ICEA S-108-720
ICEA S-93-639
ICEA S-94-649
ICEA S-97-682
IEC 60502-2
IEC 60840
IEC 62067
NF C33-223
NF C33-226
UTE C 33-223

Special Features

Borlink LE0500 is a ready-to-use Supersmooth semiconductive compound. It offers excellent thermal stability which provides robust cable extrusion and crosslinking at high surface temperature.
The excellent distribution of carbon black and additives in Borlink LE0500 results in a superior smoothness of the semiconductive screen.

Physical Properties

Property		Typical Value Data should not be used for specification work	Test Method
Density		1120 kg/m³	ISO 1183
Tensile Strain at Break (25 mm/min) [1]		180 %	ISO 527
Tensile Strength (25 mm/min) [1]		> 15 MPa	ISO 527
Change of Tensile Properties After Ageing (168 h, 135 °C) [1]		< 20 %	IEC 60811-401
Hot Set Test (200 °C, 0,20 MPa)	Elongation under load	25 %	IEC 60811-507
	Permanent deformation	0 %	
MDR, max torque		14,6 dNm	ISO 6502
Moisture		100 ppm	Karl Fischer-titration

[1] Measured on crosslinked specimens

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Electrical Properties

Property	Typical Value Data should not be used for specification work	Test Method
DC Volume Resistivity (23 °C)	25 Ωcm	ISO 3915
DC Volume Resistivity (90 °C)	50 Ωcm	ISO 3915
DC Volume Resistivity (23 °C)	25 Ωcm	ASTM D 991

Processing Techniques

Borlink LE0500 provides excellent surface finish and outstanding output rates, when processing conditions are optimized for the actual processing equipment and cable dimensions. Optimal conditions may vary according to the equipment used. Hence all material handling should preferably be conducted in closed systems and in clean room conditions. Please contact your Borealis representative for more details.

Extrusion

Typical processing temperature ranges for **Borlink LE0500** are shown below:

Hopper drying (4 h)	60 °C	With dehumidified air
Melt temperature	120 - 135 °C	

Packaging

Package: Smallbins

Storage

Borlink LE0500 has a shelf life of 18 months from production date if stored in unopened original packages, under dry and clean conditions at temperatures between 10 - 30 °C (50 - 85 °F).

More information on storage is found in our "Safety data sheet" / "Product safety information sheet" for this product.

Safety

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety of the product. For more information, contact your Borealis representative.

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The product(s) mentioned herein are not intended to be used for medical, pharmaceutical or healthcare applications and we do not support their use for such applications.

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