



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

## 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	Test Method
Data should not be used for specification work		
Density	1120 kg/m <sup>3</sup>	ISO 1183
Tensile Strain at Break (25 mm/min) <sup>1</sup>	180 %	ISO 527
Tensile Strength (25 mm/min) <sup>1</sup>	> 15 MPa	ISO 527
Change of Tensile Properties After Ageing (168 h, 135 °C) <sup>1</sup>	< 20 %	IEC 60811-401
Hot Set Test (200 °C, 0,20 MPa)	Elongation under load 25 %	IEC 60811-507
MDR, max torque	Permanent deformation 0 %	
Moisture	14,6 dNm	ISO 6502
	100 ppm	Karl Fischer-titration

<sup>1</sup> Measured on crosslinked specimens

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## Electrical Properties

Property	Typical Value <small>Data should not be used for specification work</small>	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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