## Polyethylene

# Borlink™ LE0500EHV

Crosslinkable Semiconductive Compound

## Description

**Borlink LE0500EHV** is a Supersmooth ready-to-use semiconductive compound, specially designed for semiconductive conductor screen and bonded insulation screen of energy cables.

## Applications

**Borlink LE0500EHV** is intended for semiconductive shielding of XLPE extra high voltage (EHV) cables.

## Specifications

**Borlink LE0500EHV** meets the applicable requirements as below when processed using sound extrusion practice and testing procedure:

AEIC CS9
ANSI/ICEA 108-720

IEC 62067

## Special Features

**Borlink LE0500EHV** is a ready-to-use 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 LE0500EHV results in superior smoothness of the semiconductive screen. Borlink LE0500EHV is intended as conductive shields in cables rated 400kV and above. The product is manufactured with the most stringent specification on smoothness reflected by a frequency of pips reduced by 50% compared to Borlink LE0500.

## Physical Properties

| Property | | Typical Value<br>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, 0,10 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

## Electrical Properties

| Property | Typical Value<br>Data should not be used for specification work | Test Method |
|---|---|---|
| DC Volume Resistivity (23 °C) | 25 Ωcm | ISO 3915 |

HongRong Engineering Plastics Co.,Ltd.
Head Office Tel. +85-2-6957-5415
Research Center Tel.+188 1699 6168

BOREALIS

# Polyethylene
# Borlink LE0500EHV

| | | |
|---|---|---|
| DC Volume Resistivity (90 °C) | 50 Ωcm | ISO 3915 |
| DC Volume Resistivity (23 °C) | 25 Ωcm | ASTM D 991 |

## Processing Techniques

Borlink LE0500EHV 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. To produce a good and reliable cable, it is essential to ensure careful and very clean handling of the semiconductive material. 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 LE0500EHV** are shown below:

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

## Packaging

| | |
|---|---|
| Package: | Smallbins |

## Storage

**Borlink LE0500EHV** 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.

HongRong Engineering Plastics Co.,Ltd.
Head Office Tel. +85-2-6957-5415
Research Center Tel.+188 1699 6168

# Polyethylene
# Borlink LE0500EHV

**Disclaimer**

**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.**

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication; however we do not assume any liability whatsoever for the accuracy and completeness of such information.

**Borealis makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.**

**It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.**

No liability can be accepted in respect of the use of any Borealis product in conjunction with any other products and/or materials. The information contained herein relates exclusively to our products when not used in conjunction with any other material unless as specifically provided for in the test methods stated above.

HongRong Engineering Plastics Co.,Ltd.
Head Office Tel. +85-2-6957-5415
Research Center Tel.+188 1699 6168