



# Polyethylene Borlink<sup>TM</sup> LE0550DC

## Description

**Borlink LE0550DC** is a Supersmooth crosslinkable black polyethylene compound, specially designed for semiconductive conductor screen and bonded insulation screen of energy cables.

## Applications

**Borlink LE0550DC** is intended for semiconductive shielding of crosslinked HVDC solid dielectric cables.

## Special features

**Borlink LE0550DC** is a ready-to-use Supersmooth semiconductive compound. The excellent distribution of carbon black additives in Borlink LE0550DC results in a superior smoothness of the semiconductive screen. It is specially developed to provide low space charge accumulation when used in HVDC constructions using Borlink LE4253DC as insulation.

## Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density	1100 kg/m <sup>3</sup>	ISO 1183
Tensile Strain at Break (25 mm/min) <sup>1</sup>	380 %	ISO 527
Tensile Strength (25 mm/min) <sup>1</sup>	22 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, 0,10 MPa)	Elongation under load 25 % Permanent deformation 0 %	IEC 60811-507
Moisture	100 ppm	Karl Fischer-titration

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

## Electrical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
DC Volume Resistivity (23 °C)	< 100 Ωcm	ISO 3915
DC Volume Resistivity (90 °C)	< 1000 Ωcm	ISO 3915

## Processing Techniques

Borlink LE0550DC 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.

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## Pre-drying

It is recommended that Borlink LE0550DC is dried prior to extrusion. Typical drying conditions are shown below:

Predrying (4h)                      60°C                      With dehumidified air

## Extrusion

Typical processing temperature ranges for Borlink LE0550DC are shown below:

Melt temperature    120 - 130 °C

## Packaging

Package:                      Smallbins

## Storage

**Borlink LE0550DC** 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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#### Disclaimer

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