



# Polyethylene Borlink™ LE0550DC

Crosslinkable Semiconductive Compound

## Description

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

## Applications

**Borlink LE0550DC** is intended for semiconductive screens of XLPE high voltage (HV) DC cables.

## Specifications

**Borlink LE0550DC** is expected to meet the applicable requirements provided it is processed using sound material handling, extrusion and crosslinking practices as well as appropriate testing procedures.

## 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.

## 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>	> 200 %	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, 0,2 MPa) <sup>1</sup>	Elongation under load Permanent deformation	IEC 60811-507
Moisture	< 100 % < 10 %	ISO 15512
	100 ppm	

<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

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## 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. Hence all material handling should preferably be conducted in closed systems and in clean room conditions. Please contact your Borealis representative for more details.

### 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
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### Extrusion

A screen-pack on the extruder is recommended for improved melt homogenisation. Typical processing temperature ranges for **Borlink LE0550DC** are shown below:

Melt temperature	120 - 130 °C
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## 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). Material shelf life is affected by the storage conditions and extreme conditions influence the general material quality and performance.

It is also recommended to ensure proper stock rotation by First In – First Out principle.

More information on storage is found in the Safety data sheet (SDS) / Product safety information sheet (PSIS) for this product.

## Safety

Please see the Safety data sheet (SDS) / Product safety information sheet (PSIS) for details on various aspects of safety, recovery and disposal of the products. For more information, contact your Borealis representative.



**Polyethylene**  
**Borlink LE0550DC**

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