

Crosslinkable Semiconductive Compound

Description

Borlink LE0592 is a crosslinkable black polyethylene compound, specially designed for semiconductive conductor screen and bonded insulation screen of energy cables.

Applications

Borlink LE0592 is designed for semiconductive screens in XLPE medium and high voltage cables. It can be used as inner and outer screen for bonded cable constructions and as inner screen for strippable cable constructions.

Specifications

Borlink LE0592 meets the applicable requirements as below when processed using sound extrusion practices and testing procedures

| AEIC CS8 | IEC 60840 |
|-------------------|----------------|
| AEIC CS9 | NF C33-223 |
| BS 6622 | NF C33-226 |
| DIN VDE 0276-620 | UTE C 33-223 |
| DIN VDE 0276-263 | ICEA S-108-720 |
| Cenelec HD 632 S1 | ICEA S-93-639 |
| Cenelec HD 620 S1 | ICEA S-94-649 |
| IEC 60502-2 | ICEA S-97-682 |
| | |

Special Features

Borlink LE0592 is a ready-to-use semiconductive compound. It offers excellent thermal stability which provides robust cable extrusion and crosslinking at high surface temperature, allowing for high line speed.

The excellent distribution of carbon black and additives in Borlink LE0592 results in a smooth semiconductive screen.

Physical Properties

| Property | | Typical Value Test Method Data should not be used for specification work | | |
|---------------------------------------|------------------------------|--|------------------------|--|
| Density | | 1135 kg/m³ | ISO 1183 | |
| Tensile Strain at Break (25 mm/min) 1 | | 200 % | ISO 527 | |
| Tensile Strength (25 mm/min) 1 | | 22 MPa | ISO 527 | |
| Change of Tensile Properties | After Ageing (168 h, 135 °C) | < 20 % | IEC 60811-401 | |
| Hot Set Test (200 °C, 0,20 | Elongation under load | 25 % | IEC 60811-507 | |
| MPa) | Permanent deformation | 0 % | | |
| MDR, max torque | | 12,0 dNm | ISO 6502 | |
| Moisture | | 200 ppm | Karl Fischer-titration | |

¹ Measured on crosslinked specimens

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Electrical Properties

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

Processing Techniques

Borlink LE0592 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 LE0592** are shown below:

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

Packaging

Package: Smallbins

Octabins

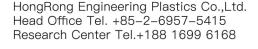
Storage

Borlink LE0592 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.







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.

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