



Polyethylene
Borlink™ LE4244EHV
 Crosslinkable Insulation Compound

Description

Borlink LE4244EHV is a crosslinkable natural superclean polyethylene compound, specially designed for insulation of power cables.

Applications

Borlink LE4244EHV is intended for insulation of XLPE extra high voltage (EHV) AC cables with rated voltages above 230 kV (Um = 245 kV).

The values are voltages between phases as defined in IEC 60183.

Specifications

Borlink LE4244EHV is expected to meet the applicable requirements included in the below mentioned standards provided it is processed using sound material handling, extrusion and crosslinking practices as well as appropriate testing procedures. This applies up to the maximum recommended voltage level indicated in "Applications" section above since some standards cover wider voltage ranges.

AEIC CS9
 ANSI/ICEA 108-720

IEC 62067

Special Features

Borlink LE4244EHV is a ready-to-use natural compound. Borlink LE4244EHV has very low sagging properties and is specially designed for extrusion on horizontal lines and for cables with thick insulation walls extruded on CCV lines. The cleanliness and product consistency of Borlink LE4244EHV results in a superclean insulation. Borlink LE4244EHV cleanliness level is assured through the Borealis quality management system.

Physical Properties

| Property | Typical Value | Test Method |
|--|---|---------------|
| <small>Data should not be used for specification work</small> | | |
| Density (Base Resin) | 922 kg/m ³ | ISO 1183 |
| Melt Flow Rate (190 °C/2,16 kg) ¹ | 0,8 g/10min | ISO 1133 |
| Tensile Strain at Break (250 mm/min) ² | > 450 % | ISO 527 |
| Tensile Strength (250 mm/min) ² | > 17 MPa | ISO 527 |
| Change of Tensile Properties After Ageing (168 h, 135 °C) ² | < 20 % | IEC 60811-401 |
| Hot Set Test (200 °C, 0,20 MPa) ² | Elongation under load 75 % Permanent deformation 5 % | IEC 60811-507 |
| MDR, max torque | 3,1 - 4,5 dNm | ISO 6502 |
| Methanol Wash ³ | < 1.000 ppm | BTM 00118 |
| Moisture | < 200 ppm | ISO 15512 |

¹ Base Resin

² Measured on crosslinked specimens

³ BTM = Borealis Test Method

Borlink is a trademark of the Borealis group.

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Electrical Properties

| Property | Typical Value | Test Method |
|-------------------------------|---------------|-------------|
| Dielectric constant (50 Hz) | 2,3 | IEC 60250 |
| DC Volume Resistivity (23 °C) | > 10 PΩcm | IEC 62631 |
| Dissipation Factor (50 Hz) | 0,0003 | IEC 60250 |

Data should not be used for specification work

Processing Techniques

To produce a good and reliable cable, it is essential to ensure careful and very clean handling of the insulation 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

A screen-pack on the extruder is recommended for improved melt homogenisation.

Melt temperature 125 - 135 °C

Packaging

Package: Octabins

Storage

Borlink LE4244EHV has a shelf life of 12 months from production date if stored in unopened original packages, under dry and clean conditions at temperatures between 10 - 35°C (50 - 95°F).

The material can be stored at ambient temperature up to 40°C (104°F) for a period up to 6 months provided it is in unopened original packages and under dry and clean conditions. Material shelf life is affected by the storage conditions and extreme conditions influence the general material quality and performance.

Before use, material shall be conditioned indoors (production room) to reach ambient temperature.

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.



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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.

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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.

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