



Polyethylene™ Borlink™ LE0310-04

Description

Borlink LE0310-04 is a crosslinkable black polyethylene compound, specially designed for semiconductive strippable insulation shield of energy cables.

Applications

Borlink LE0310-04 is designed for semiconductive strippable shields in TR-XLPE medium voltage cables.

Specifications

Borlink LE0310-04 meets the applicable requirements as below when processed using sound extrusion practices and testing procedures

AEIC CS8
ANSI/ICEA S-93-639
ANSI/ICEA S-94-649

ANSI/ICEA S-97-682
IEC 60502-2

Special features

Borlink LE0310-04 is a ready-to-use semiconductive compound. It provides very low strip forces when used over Borealis crosslinkable polyethylene insulation compounds.

The excellent distribution of carbon black and additives in Borlink LE0310-04 results in a smooth semiconductive shield.

Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density (23 °C)	1,14 g/cm ³	ASTM D 1928C/ D 1505
Tensile Strain at Break (20 In/min) ¹	300 %	ASTM D 638
Tensile Strength (20 In/min) ¹	1,600 psi	ASTM D 638
Tensile Strength Retention (168 h, 121 °C)	> 75 %	ASTM D 638
Tensile Elongation After Ageing (168 h, 121 °C)	> 100 %	ASTM D 638
Brittleness temperature	< -35 °C	ASTM D 746

¹ Measured on crosslinked specimens

Electrical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
DC Volume Resistivity (23 °C)	< 30 Ohm.cm	ASTM D 991
DC Volume Resistivity (90 °C)	< 100 Ohm.cm	ASTM D 991

Borlink is a trademark of Borealis group.

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Other properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Plaque Strip Force (90° peel)	5 lbs/½ inch	Borealis Method

Processing Techniques

Borlink LE0310-04 provides excellent surface finish when processing conditions are optimized for the actual processing equipment and cable dimensions. Optimal conditions may vary according to the equipment used.

The required extrusion melt temperature range is approximately 240 to 260°F (115 to 125°C). Lower melt temperatures may result in a poorly mixed, uneven extrudate and higher melt temperatures may result in extrudate pre-cure or scorch. The feed section of the extruder should be water cooled. The curing configuration should be carefully controlled, and the maximum cable surface temperature in the curing tube should be maintained below 280°C (535 °F).

To produce a good and reliable cable, it is essential to ensure careful and clean handling of semiconductive material. Hence all material handling should preferably be conducted in closed systems. Please contact your Borealis representative for more details.

Extrusion

Typical processing temperature ranges for Borlink LE0310-04 are shown below:

Hopper drying (4 h)	40 °C	With dehumidified air
Melt temperature	240 - 260 °F 115 - 125 °C	

Packaging

Package: Smallbins

Storage

Borlink LE0310-04 has a shelf life of 12 months from delivery date if stored in unopened original packages, under dry and clean conditions at temperatures between 10 - 30 °C (50 - 85 °F). It is suggested that first-in/first-out practices be followed.

More information on storage is found in our "Safety data sheet" / "Product safety information sheet" for this product.

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 Polyethylene
Borlink LE0310-04**Safety**

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety, recovery and disposal 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.

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.