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Polyethylene
Borlink™ LE0595-07

Crosslinkable Semiconductive Compound

Description

Borlink LE0595-07 is a crosslinkable black polyethylene compound, specially designed for semiconductive conductor shield or bonded insulation shield of energy cables.

Applications

Borlink LE0595-07 is uniquely designed for semiconductive shields of medium voltage cables based on copper and aluminium conductors with TR-XLPE or EPR insulation compounds. It can be used as inner and outer shields for bonded cable constructions and as inner shield for strippable cable constructions.

Specifications

Borlink LE0595-07 meets the applicable requirements as below when processed using sound extrusion practices and testing procedures

AEIC CS8
ANSI/ICEA S-94-649
ANSI/ICEA S-97-682
ANSI/ICEA S-93-639
IEC 60502-2
IEC 60840
UL 1072

Special features

Borlink LE0595-07 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 LE0595-07 results in a smooth semiconductive shield.

Physical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Density (23 °C)	1135 kg/m³	ASTM D 792
Tensile Strain at Break (20 In/min) [1]	200 %	ASTM D 638
Tensile Strength (20 In/min) [1]	2.700 psi	ASTM D 638
Retention of Tensile Properties After Ageing (168 h, 150 °C) [1]	> 75 %	ASTM D 638
Brittleness temperature	< -35 °C	ASTM D 746

[1] Measured on crosslinked specimens

Electrical Properties

Property	Typical Value Data should not be used for specification work	Test Method
DC Volume Resistivity (23 °C)	< 50 Ohm.cm	ASTM D 991
DC Volume Resistivity (90 °C)	< 500 Ohm.cm	ASTM D 991

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Processing Techniques
Borlink LE0595-07 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.

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 curing configuration should be carefully controlled.

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 LE0595-07 are shown below:

Hopper drying (4 h)	60 °C	With dehumidified air
Melt temperature	115 - 125 °C 240 - 260 °F	

Packaging

Package:	Smallbins

Storage
Borlink LE0595-07 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".

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

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.

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