



Polyethylene Borlink™ LE4212

Crosslinkable Insulation Compound

Description

Borlink LE4212 is a crosslinkable natural polyethylene compound, specially designed for insulation of energy cables.

Applications

Borlink LE4212 is intended for insulation of XLPE power cables with rated voltages up to 72 kV.

Specifications

Borlink LE4212 meets the applicable requirements as below when processed using sound extrusion practices and testing procedures

AIEC CS8
 BS 6622
 DIN VDE 0276-620
 ANSI/ICEA S-94-649
 ANSI/ICEA S-97-682
 ANSI/ICEA S-94-639

Cenelec HD 620 S1, Part 1, table 2A, DIX 3-14
 IEC 60502-2
 IEC 60840
 NF C33-223
 UL 1072

Special features

Borlink LE4212 is a ready-to-use natural compound. It provides improved electrical performance (additive WTR XLPE) meeting the advanced wet ageing requirements. It offers easy extrusion performance and very good scorch resistance. Borlink LE4212 cleanliness level is assured through the Borealis quality control system.

Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density (Base Resin)	923 kg/m ³	ASTM D 792
Melt Flow Rate (190 °C/2,16 kg) ¹	2,2 g/10min	ASTM D 1238
Tensile Strain at Break (500 mm/min) ²	400 %	ASTM D 638
Tensile Strength (500 mm/min) ²	17 MPa	ASTM D 638
Retention of Tensile Properties After Ageing (168 h, 136 °C)	90 %	ASTM D 638
Brittleness temperature	< -76 °C	ASTM D 746
Hot Creep Test (150 °C, 29 psi)	Elongation under load Permanent deformation	ICEA T-28-562
Hot Set Test (200 °C, 0,2 MPa)	Elongation under load Permanent deformation	IEC 60811-507

¹ Base Resin

² Measured on crosslinked specimens

Borlink is a trademark of Borealis group.

Borealis AG | Wagramer Strasse 17-19 | 1220 Vienna | Austria
 Telephone +43 1 224 00 0 | Fax +43 1 22 400 333
 FN 269858a | CCC Commercial Court of Vienna | Website www.borealisgroup.com



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Electrical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Dielectric constant (50 Hz)	< 2,3	ASTM D 150
DC Volume Resistivity	> 10 POhm.cm	ASTM D 257
Dielectric Strength	> 21 kV/mm	ASTM D 149
Dissipation Factor (50 Hz)	0,0005	ASTM D 150

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. Practical advice is given in a separate brochure. Please contact your Borealis representative for more details.

Extrusion

Melt temperature	125 - 135 °C 257 - 275 °F
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Packaging

Package:	Smallbins Bulk
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Storage

Borlink LE4212 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).

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.



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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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