



Polyethylene Borlink™ LE4244R

Crosslinkable Insulation Compound

Description

Borlink LE4244R is a crosslinkable natural polyethylene compound, specially designed for insulation of energy cables.

Applications

Borlink LE4244R is intended for insulation of XLPE power cables with rated voltages up to 72 kV.

Specifications

Borlink LE4244R meets the applicable requirements as below when processed using sound extrusion practices and testing procedures

Cenelec HD 632 S1
IEC 60502-2

IEC 60840

Special Features

Borlink LE4244R is a ready-to-use natural compound. It 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.

Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density (Base Resin)	922 kg/m ³	ISO 1183
Bulk density	500 - 600 kg/m ³	
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)	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	Karl Fischer-titration

¹ Base Resin

² Measured on crosslinked specimens

³ BTM = Borealis Test Method



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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	IEC 60250
DC Volume Resistivity	> 10 PΩcm	IEC 60093
Dielectric Strength (50 Hz)	> 22 kV/mm	IEC 60243
Dissipation Factor (50 Hz)	0,0003	IEC 60250

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

Melt temperature 125 - 135 °C

Packaging

Package: Octabins

Storage

Borlink LE4244R 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 - 30 °C (50 - 85 °F). The material could be stored (originally closed and in dry environment) at an ambient temperature up to 40°C for a certain period of time (6 months) without negative influence on the material quality. Before use, material shall be conditioned indoors (production room) at the ambient temperature.

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, 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.

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