



Polyethylene

Borlink™ LH4201R

Crosslinkable Insulation Compound

Description

Borlink LH4201R is a crosslinkable natural polyethylene compound, specially designed for insulation of energy cables.

Applications

Borlink LH4201R is intended for insulation of XLPE power cables with rated voltages up to 72 kV. It is designed for cable constructions with bonded insulation shields.

Specifications

Borlink LH4201R meets the applicable requirements as below when processed using sound extrusion practices and testing procedures

Cenelec HD 620 S1, Part 1, table 2A, DIX 3 to 14
DIN VDE 0276-620
GOSTR 55025-2012

IEC 60502-2
IEC 60840

Special Features

Borlink LH4201R is a ready-to-use natural co-polymer compound. It provides superior electrical performance (polymer WTR XLPE) meeting the most stringent wet ageing requirements. It offers excellent scorch resistance and long production runs. Borlink LH4201R 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)	924 kg/m ³	ISO 1183
Melt Flow Rate (190 °C/2,16 kg) ¹	2,8 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 %	IEC 60811-507
MDR, max torque	Permanent deformation 5 %	
Methanol Wash ³	3,1 - 4,1 dNm	ISO 6502
Moisture	< 500 ppm	BTM 00118
	< 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)	0,0005	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. Practical advice is given in a separate brochure. Please contact your Borealis representative for more details.

Extrusion

Melt temperature 125 - 135 °C

Packaging

Package: Octabins
Cleantainers

Storage

Borlink LH4201R has a shelf life of 18 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 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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