

Polyethylene **Borlink™ LE8280** Crosslinkable Semiconductive Compound

Description

Borlink LE8280 is a crosslinkable black polyethylene compound, specially designed for semiconductive conductor screen and bonded insulation screen of energy cables.

Applications

Borlink LE8280 is designed for semiconductive screens in XLPE medium and high voltage cables. It can be used as inner and outer screen for bonded cable constructions and as inner screen for strippable cable constructions.

Specifications

Borlink LE8280 meets the applicable requirements as below when processed using sound extrusion practices and testing procedures

AEIC CS8	ICEA S-94-649
AEIC CS9	ICEA S-97-682
BS 6622	ICEA S-108-720
DIN VDE 0276-263	IEC 60502-2
DIN VDE 0276-620	IEC 60840
Cenelec HD 620 S1	NF C33-223
Cenelec HD 632 S1	NF C33-226
ICEA S-93-639	UTE C 33-223

Special Features

Borlink LE8280 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. It also provides excellent scorch resistance property.

The excellent distribution of carbon black and additives in Borlink LE8280 results in a very smooth semiconductive screen.

Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density	1135 kg/m ³	ISO 1183
Tensile Strain at Break (25 mm/min) ¹	200 %	ISO 527
Tensile Strength (25 mm/min) ¹	22 MPa	ISO 527
Change of Tensile Properties After Ageing (168 h, 135 °C) ¹	< 20 %	IEC 60811-401
Hot Set Test (200 °C, 0,20 MPa)	Elongation under load 25 %	IEC 60811-507
MDR, max torque	Permanent deformation 0 %	
Moisture	12,0 dNm	ISO 6502
	200 ppm	Karl Fischer-titration

¹ Measured on crosslinked specimens

Borlink is a trademark of the Borealis group.

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Electrical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
DC Volume Resistivity (23 °C)	< 100 Ωcm	ISO 3915
DC Volume Resistivity (90 °C)	< 1000 Ωcm	ISO 3915

Processing Techniques

Borlink LE8280 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. To produce a good and reliable cable, it is essential to ensure careful and very clean handling of the semiconductive material.

Hence all material handling should preferably be conducted in closed systems. Please contact your local Borealis representative for more details.

Extrusion

Typical processing temperature ranges for **Borlink LE8280** are shown below:

Hopper drying (4 h)	60 °C	With dehumidified air
Melt temperature	120 - 135 °C	

Packaging

Package: Octabins

Storage

Borlink LE8280 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).

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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Borlink LE8280**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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