

Borlink™ LS4201S, experience you can rely on

Borealis produced the first HV insulation cable compound rated for voltages above 63 kV in 1973. Having created Superclean XLPE technology in the 70's it formed the developmental cornerstone of HV cables designed for voltages in the 36–220 kV range. Since then Borealis has supplied the insulation and screening compounds to HV

cable manufacturers across the globe and established its compounds as leading edge solutions for these applications.

This is experience you can rely on.

Borlink™ LS4201S, state-of-the-art manufacturing

Experience and state-of-the-art manufacturing are central to achieving the best results. All Borlink™ HV insulations are produced and packed on lines specifically designed for the manufacture of clean products. The special equipment used includes highly sensitive metal separators, automatic contamination detectors for pellet inspection and automated extruded tape inspection.

On top of that, our advanced quality management system leaves nothing to chance.

High voltage cables need to be degassed before completion at the cable manufacturer. The purpose of degassing is to remove decomposition products from the cable. Residual flammable gases would present a fire hazard during cable installation or operation. Moreover, decomposition products can mask defects that should be detected in routine testing, thereby seriously compromising cable reliability.

About Borealis and Borouge

Borealis is a leading provider of innovative solutions in the fields of polyolefins, base chemicals and fertilizers. With headquarters in Vienna, Austria, Borealis currently employs around 6,400 and operates in over 120 countries. It generated EUR 8.1 billion in sales revenue in 2013. The International Petroleum Investment Company (IPIC) of Abu Dhabi owns 64% of the company, with the remaining 36% owned by OMV, the leading energy group in the European growth belt. Borealis provides services and products to customers around the world in collaboration with Borouge, a joint venture with the Abu Dhabi National Oil Company (ADNOC).

Building on its proprietary Borstar® and Borlink™ technologies and 50 years of experience in polyolefins, Borealis and Borouge support key industries including infrastructure, automotive and advanced packaging.

The Borouge 3 plant expansion in Abu Dhabi will be fully operational in 2014. Borouge 3 will deliver an additional 2.5 million tonnes of capacity when fully ramped up, bringing the total Borouge capacity to 4.5 million tonnes. Borealis and Borouge will then have approximately 8 million tonnes of polyolefin capacity.

Borealis offers a wide range of base chemicals, including melamine, phenol, acetone, ethylene, propylene, butadiene and pygas, servicing a wide range of industries. Together with Borouge the two companies will produce approximately 6 million tonnes of Base Chemicals in 2014.

Borealis also creates real value for the agricultural industry with a large portfolio of fertilizers. The company distributes approximately 2.1 million tonnes per year. This volume will increase to more than 5 million tonnes by the end of 2014.

Borealis and Borouge aim to proactively benefit society by taking on real societal challenges and offering real solutions. Both companies are committed to the principles of Responsible Care®, an initiative to improve safety performance within the chemical industry, and contribute to solve the world's water and sanitation challenges through product innovation and their Water for the World™ programme.

For more information visit:

www.borealisgroup.com
www.borouge.com
www.waterfortheworld.net

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Borlink™ Supercure based high voltage cable insulation



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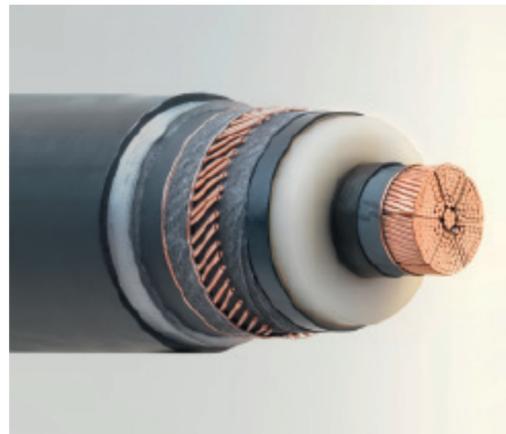
Introduction

If all the high voltage (HV) cables produced using Borealis compounds were laid end-to-end they would circle the world more than four times. No other XLPE producer can lay claim to such a long track record in the field of HV cable compounds – nor match Borealis' Borlink™ XLPE compounds based on Supercure technology.



Borlink™ LS4201S, benefits for you

Both cable manufacturers and utilities find valuable benefits in Borlink™ LS4201S crosslinked polyethylene (XLPE).



For cable manufacturers

- better scorch safety lowers the risk of insulation defects
- reduced degassing time burden
- optimised cable manufacturing production cycle
- less working capital tied up in the production process

For utilities

- improved overall long-term reliability
- improved overall safety

Borlink™ LS4201S, innovation for you

Maintaining our leadership position calls for innovative research and development, as well as application of the wealth of know-how we have accumulated over many years. Based on Supercure technology, Borealis has designed LS4201S to be the premier XLPE insulation providing a step change in performance and a new industry standard. Borlink™ LS4201S builds on the outstanding cleanliness (Superclean) associated with the traditional Borlink™ LE4201S grade, merging that characteristic with lower degassing burden and improved scorch performance.

Less scorch – higher reliability

In processing, the formation of scorch – prematurely crosslinked material – within the extruders and the head must be given special consideration. Scorch formed during the cable extrusion process can enter the insulation and form defects that potentially reduce cable reliability. This type of defect is caused by random events and is not easily detected by established quality control tests. It is therefore essential to master the extrusion process and use materials that have a high level of scorch retarding performance. Borlink™ LS4201S provides the best solution.

Decreased degassing burden – increased productivity

Degassing is a vital part for HV cable production. In this process cable cores are held at elevated temperatures to speed up desorption of by-products from the crosslinking process. The degassing burden is directly related to the size of the cable core and to the level of by-products left in the cable after it exits the CV tube.

As well as reducing temperature-load on cable cores during the degassing process itself, the lower degassing burden of Borlink™ LS4201S aids optimisation of the production cycle. Combined with product cleanliness and the reduced risk of scorch, Borlink™ LS4201S provides cable makers and utilities with a reliable, quality solution for HV cable insulation that is technically ahead of the field.

