Media Release

Vienna, Austria | 21 August 2014

Next generation extruded cable compound technology supports extra high voltage direct current transmission

Step-change innovation to provide increased efficiency and sustainability

Borealis and Borouge, leading providers of innovative, value-creating solutions for the wire and cable industry, announce a true step-change high voltage direct current (HVDC) innovation based on the Borlink™ technology platform. Developed in partnership with power and automation technology leader ABB, this major HVDC innovation, supported by a unique track record of 15 years proven operational excellence and industry leadership in extruded HVDC materials, will support the further integration of renewable energies into the grid and the establishment of more interconnections among countries in major infrastructure projects around the world. The new grade, Borlink LS4258DCE, will be introduced to industry partners at the 2014 Cigré Session in Paris, France.

New Borlink™ grade supports extruded DC transmission at extra high voltages

HVDC power transmission supports long-distance electricity transport without significant losses, providing higher efficiency and increased sustainability. The industry trend is clearly moving towards an increased need for higher capacity transmission at high voltage levels. Borealis and Borouge now introduce the next generation HVDC insulation compound, Borlink LS4258DCE, which, along with the accompanying HVDC semicon Borlink LE0550DC, enables the use of extruded cable technology at significantly higher voltage and transmission levels in instances where paper cables are traditionally used. Successful type test qualification of an extruded cable system according to the Cigré recommendation 496 has been achieved at 525 kV based on Borlink LS4258DCE and Borlink LE0550DC. This key performance indicator is made possible by the unique character of the compound providing a high level of both

Borealis AG | IZD Tower | Wagramer Strasse 17-19 | A-1220 Austria
Tel +43 (0) 1 22 4000 | Fax +43 1 22 400 333
www.borealisgroup.com | reg no FN 269858 a

chemical and physical cleanliness to achieve the envisioned step-change in electrical performance.

This unique material is produced by the Borlink technology, which is a complete global package of power cable compounds and expertise with applications for high voltage (HV), including extra high voltage (EHV) and HVDC launched in 2012. Borlink LS4258DCE is an unfilled crosslinked polyethylene (XLPE) compound based on the enhanced base resin technology Supercure. The compound is designed to provide higher cable production efficiency in terms of a shortened cable production cycle, enabled by a significant reduction of degassing burden and improved scorch performance. Offering proven benefits to the industry, it is produced at Borealis' state-of-the-art high pressure production facilities in Stenungsund, Sweden, a plant recently supported by major investments.

Enhancing a proven track record of W&C innovation

As a long-time industry leader, Borealis is dedicated to helping cable manufacturers address the most pressing issues and future needs in the industry. For cable makers, Borlink LS4258DCE will provide step-change technical benefits as well as more efficient and more streamlined means of production. This innovative new grade enables the use of extruded cable technology to produce extra high voltage cables necessary for increased and more efficient transmission capacity. This allows transmission over longer distances and grid integration of remote renewable energy generation. Utilities will be able to benefit from this more efficient use of energy, leading to higher sustainability.

In addition to environmental benefits such as more efficient energy supply, Borealis' innovation also brings a range of societal and economic benefits. An increased number of cables installed underground leads to fewer unsightly overhead lines, contributing to high reliability and contributes to ensuring no risk to human health. Enabling larger amounts of power from renewable energy sources to be delivered to the grid – for example from remote offshore wind farms – will help drive energy change. Making it possible for countries to trade energy by way of interconnectors also promotes energy efficiency and reliability at economic prices.

"Whilst Europe has been at the forefront of technological developments in this area, the trend is now becoming global," explains Anton Wolfsberger, Borealis Marketing Manager for Energy and Infrastructure. "The integration of renewables into the transmission system and interconnections between countries are key factors in achieving greater energy efficiency, and thus of great interest to both policymakers and the general public."

Borealis AG | IZD Tower | Wagramer Strasse 17-19 | A-1220 Austria
Tel +43 (0) 1 22 4000 | Fax +43 1 22 400 333
www.borealisgroup.com | reg no FN 269858 a

"Borealis' role as a leading innovator on a global scale will be further enhanced by this step-change technology innovation," says Gilles Rochas, Borealis Vice President for Energy and Infrastructure. "In line with our mission in *Bringing Energy All Around*, we will continue to cooperate with partners and customers along the value chain to deliver tangible benefits not only for the wire and cable industry, but for society as a whole."

Visit Borealis and Borouge at the 2014 Cigré Session from 25-29 August, stand 101, to learn more about Borlink LS4258DCE. A poster presentation of the new grade titled "Characteristics of candidate material systems for next generation extruded HVDC cables" will be given on 27 August during the D1 poster session (Paper D1-104).

Photo: © iStock Photo

END

For further information please contact:

Virginia Mesicek
External Communications Manager, Borealis Group
Tel. +43 (0)1 22 400 772 (Vienna, Austria)
e-mail: virginia.mesicek@borealisgroup.com

About Borealis Energy and Infrastructure

For nearly 50 years, Borealis has been a leading supplier of advanced energy & infrastructure plastics solutions for the pipe and fittings industry as well as for the wire and cable and capacitor film industries. Thanks to its unique and proprietary technologies, Borealis provides a large portfolio of innovative products and services which create real value for customers and partners and enable step-changing innovations. The unique Borstar® technology supports applications in the fields of water and gas distribution, wastewater and sewage disposal, irrigation systems, chemical and industrial pipelines, in-house plumbing and heating as well as pipe systems for oil and gas exploration and transportation. The unique Borlink™ technology enables Borealis to offer a wide range of sophisticated extra-high, high and medium voltage cable applications as well as semicon

Borealis AG | IZD Tower | Wagramer Strasse 17-19 | A-1220 Austria
Tel +43 (0) 1 22 4000 | Fax +43 1 22 400 333
www.borealisgroup.com | reg no FN 269858 a

products. Borealis delivers effective Visico™ solutions in low voltage energy transmission and distribution cables and offers world-class innovations in providing, installing and extending the lifetime of cable systems.

About Borealis and Borouge

Borealis is a leading provider of innovative solutions in the fields of polyolefins, base chemicals and fertilizers. This year, Borealis already celebrates its 20th anniversary. 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

Borealis AG | IZD Tower | Wagramer Strasse 17-19 | A-1220 Austria
Tel +43 (0) 1 22 4000 | Fax +43 1 22 400 333
www.borealisgroup.com | reg no FN 269858 a