



BOREALIS



Media Release

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Borealis and Borouge highlight material solutions for electric sports car at VDI Mannheim and announce start-up of expanded Itatiba operations

Borealis and Borouge, leading providers of innovative, value-creating plastics solutions, are using the occasion of the 2015 VDI Mannheim to showcase material solutions for a leading automotive manufacturer and announce the start-up of expanded operations in Itatiba, Brazil. A new Daplen™ grade developed in cooperation with BMW for the front bumper of the electric sports car BMW i8 is a recent and specific example of how Borealis and Borouge innovations can play a role in facilitating systematic lightweight construction in the automotive industry.

Innovative Borealis grades found in BMW i8 front bumper and instrument panel (IP) carrier

Primerless painting systems address the need for greater economy and sustainability in automotive exterior applications by reducing cycle time and system costs. For the production of its revolutionary top-of-range electric sports car BMW i8, BMW required a lightweight bumper material that delivered on several key aspects in processability and manufacturing. Developed in close partnership with BMW for use in the front bumper of the BMW i8, the new grade Daplen™ EE112AE shows how Borealis and Borouge deliver expertise along the entire product and application development chain in order to facilitate primerless paint systems for exterior plastic applications which fulfil the most demanding design and performance criteria.

The new-generation Daplen EE112AE is a 12% mineral-filled elastomer modified polypropylene (PP) compound. It fulfils BMW's extremely stringent paint adhesion quality requirements for primerless paint systems in their in-house manufacturing operation. Commercially launched in the last quarter of 2014, this grade provides easy processability for low production scrap rate as well as reduced density. Most crucially for this electric sports car, the good impact/stiffness balance provided by Daplen EE112AE enables a low part weight.

Another innovative material solution, Fibremod™ GB215HP, is being used in the BMW i8 IP carrier. A 20% long glass fibre reinforced PP grade, Fibremod GB215HP provides excellent strength, high stiffness and outstanding energy absorption in high speed deformation, thus ideally fulfilling today's stringent crash and impact requirements. Although not a new grade, Fibremod GB215HP helps support BMW's own integral foaming injection moulding process, resulting in low warpage and excellent dimensional stability.

Production start-up at Itatiba means significantly higher output

The start-up of expanded production facilities in Itatiba, near Sao Paulo, Brazil, at the end of 2014 means that Borealis has now passed another milestone on the way to continued expansion of global supply capabilities. As of the end of last year, the mechanical completion of the Itatiba expansion had been completed, allowing for the testing of grades and start-up of production.

With a total investment of around EUR 45 million, the ongoing Itatiba expansion project is a vital component of the Borealis long-term growth strategy. It has involved the construction of an additional production building, two state-of-the-art PP compounding extruders, blending and raw material silos, warehouse facilities and a bagging line. Extensive upgrading of utility and water systems has also been carried out. This site produces the high-performance, high-quality PP compounds which are in high demand for the South American operations of leading automotive manufacturers and Original Equipment Manufacturers (OEMs) as well as for the appliance industry.

"We are pleased to be able to use VDI Mannheim as a stage to highlight our leading-edge innovations and communicate our global expansion efforts," says Harald Hammer, Borealis Vice President Engineering Applications. "New grades and material solutions developed in cooperation with our partners in the automotive industry are helping reduce vehicle weight, making enhanced efficiency and sustainability all the more feasible. Our expansion in Itatiba enables us to intensify the development of pioneering, value-added applications in collaboration with customers and partners in South America."

Visit Borealis and Borouge at VDI Mannheim in Mannheim, Germany, from 18-19 March at hall 1, stand 54 to learn more.



Developed in cooperation with BMW for the front bumper of the electric sports car BMW i8, Daplen™ EE112AE is a recent and specific example of how Borealis and Borouge innovations can play a role in facilitating systematic lightweight construction in the automotive industry.

Photo: © Borealis.

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About Borealis and Borouge Engineering Applications

For over 50 years, Borealis has been a leading supplier of advanced polyolefin plastics for engineering applications in the automotive industry and for household appliances. Thanks to its unique and proprietary Borstar® technology, Borealis provides a large portfolio of innovative products and services which create real value for customers and partners around the world. Innovative automotive solutions include materials for exterior, interior and under the bonnet applications, such as bumpers, body panels, trims, dashboard, door cladding, climate control units, air intake manifolds as well as battery cases. The appliance product range includes materials for small appliances and white goods, from coffeemakers to refrigerators and beyond. Borealis offers advanced polypropylene solutions which make engineering applications lighter, more energy efficient, robust and visually appealing.

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

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