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## **Borealis receives two European Plastics Innovation Awards for Energy and Automotive projects**

Borealis, a leading provider of innovative solutions in the fields of polyolefins, base chemicals and fertilizers, has received two European Plastics Innovation Awards:

- The New Surfaces for Plastic Parts Award for the Daplen™ EE112AE lightweight primerless paintable thermoplastic olefin (TPO) compound
- The Best Lightweight Innovation Award for their cooperation with film manufacturer, Treofan, in creating the thinnest polypropylene capacitor film yet.

In 2015, European Plastics Converters (EuPC), PlasticsEurope and the Society of Plastics Engineers (SPE) launched their European Innovation Awards competition to acknowledge the work of companies in the plastics industry value chain that have developed a new idea, method, product or technology that responds to a societal need while respecting the three Ps of Sustainability (People, Planet, Profit). The awards were presented on Monday, January 25 in Brussels, Belgium.

### **Surface solutions for exterior automotive applications**

The automotive industry has an increasing need for greater economy and efficiency in automotive exterior applications by reducing cycle time and system costs, while still meeting high production standards. Primerless painting systems can help achieve these parameters by eliminating a step in the production process. The New Surfaces for Plastic Parts Award was presented to Borealis for the primerless paint grade Daplen EE112AE, a 12% mineral-filled elastomer modified polypropylene (PP) compound, which was developed in close partnership with BMW for use in its top vehicle range and fulfils BMW's stringent paint adhesion quality requirements for primerless paint systems. It provides easy processability for low production scrap rate and reduced density with good impact/stiffness balance enabling the weight reduction of parts. This material was used in the BMW 7 front bumper and tailgate cladding.

## Successful cooperation in developing thinnest capacitor films

For the Best Lightweight Innovation Award, Borealis was recognised together with Treofan, a global leader in biaxially oriented polypropylene (BOPP) films, for their cooperation in creating the thinnest polypropylene capacitor film, down to 1.9 µm. This film was made with Borclean™ HC310BF, a high crystallinity, super pure homo-polypropylene with a novel molecular design that enables the production of ultra-thin, metallisable dielectrical film for dry capacitors with increased thermal stability.

Polypropylene capacitor films are used in the production of dry, metalized capacitors for a variety of applications, but specifically in automotive applications for hybrid and electric motor systems, there is a need for high thermal stability and low volume in order to save space and reduce costs for the cooling systems. Thus, extremely thin films with a high level of thermal and electrical resistance are needed.

Treofan is developing these ultra-thin capacitor films with a high level of thickness homogeneity, electrical field stressability, low energy losses and very good mechanical characteristics using the Borealis Borclean super pure, high isotactic polypropylene homopolymer with a novel polymer design. The thinness of the film enables the capacitor producer to develop much smaller systems with the same electrical capacity. Treofan and Borealis are planning to further improve these films by further reducing thickness to increase volume efficiency, thermal resistance and voltage levels.

## Fostering a culture of innovation

“We are very proud to receive these awards for projects in two of our application areas,” comments Maurits van Tol, Borealis Vice President Innovation and Technology. “This is a result of hard work and determination within our company but also of strong cooperation with our partners in the value chain, further emphasizing our Value Creation through Innovation strategy and our commitment to sustainable plastic solutions. We look forward to continuing and enhancing these partnerships for more innovations to come.”



Image: Robert Gubo, Application Technology Manager OEM Team BMW/Daimler, Automotive Marketing Borealis, (left) and Georg Grestenberger, Project Manager, Innovation Project Management Office Borealis, (right) with the New Surfaces for Plastic Parts Award and BMW 3 Series bumper. Photo: Plastics Europe. Photo: Plastics Europe.



Image: Wolfram Stadlbauer, Senior Application Marketing Manager, Marketing and New Business Development Borealis, (left) and Dr. Karl Heinz Kochem, Head of Innovation Capacitor Films, Treofan, (right) with the Best Lightweight Innovation Award. Photo: Plastics Europe.

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#### **About Borealis Automotive**

For over 50 years, Borealis has been a leading supplier of innovative polyolefin plastic materials for engineering applications in the automotive industry. Using its unique and proprietary Borstar® technology and its Fibremod™ post-reactor technology for fibre reinforced polypropylene (PP) compounds, Borealis delivers ideal replacement solutions for conventional materials such as metal, rubber and engineering polymers. Borealis continues to discover new material solutions which help facilitate lightweight construction and thus play an important role in enhancing energy efficiency. In automotive vehicles, Borealis' leading-edge polyolefin plastic materials are used in a wide range of exterior, interior, and under-the-bonnet applications, including bumpers, body panels, trims, dashboards, door claddings, climate control and cooling systems, air intake manifolds and battery cases.

#### **About Borealis Energy**

For over 50 years, Borealis has been a leading provider of polyolefin compounds for the global wire and cable industry. Its large portfolio of products and services is based on unique and proprietary technologies that create real value for customers and enable step-change innovations. A broad range of sophisticated extra-high, high and medium voltage cable applications as well as semi-conductive products are made possible by Borealis' Borlink™ technology. Borealis' Visico™/Ambicat™ technology is used in low voltage energy transmission and distribution cable solutions, where it helps extend the lifetime of cable systems. Capacitor film products are consistently and qualitatively enhanced by Borealis' leading polypropylene (PP) material solutions.

#### **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 6,500 and operates in over 120 countries. It generated EUR 8.3 billion in sales revenue in 2014. The International Petroleum Investment Company (IPIC) of Abu Dhabi owns 64% of the company, with the remaining 36% owned by OMV, an integrated, international oil and gas company. 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.

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The Borouge 3 plant expansion in Abu Dhabi will be fully operational in 2015. 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 2015.

Borealis also creates real value for the agricultural industry with a large portfolio of fertilizers and technical nitrogen products. The company distributes approximately 5 million tonnes per year.

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.

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**For more information visit:**

[www.borealisgroup.com](http://www.borealisgroup.com)

[www.borouge.com](http://www.borouge.com)

[www.waterfortheworld.net](http://www.waterfortheworld.net)

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