



Media Release

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Borealis strengthens cooperation with Taiwanese firm for development of lightweight, recyclable foam use concepts

Borealis, leading provider of innovative solutions in the fields of polyolefins, base chemicals and fertilizers, announces it has entered into a formal cooperation with Taiwan-based convertor Reach Plastic Industrial Co., Ltd. The new collaboration builds upon the foundations of an existing multi-year relationship and strengthens Borealis' position as a global polypropylene (PP) foam base resin and technology provider.

The cooperation allows Borealis to explore the development of market applications based on Borealis' Daploy™ high melt strength (HMS) PP foam material. Daploy HMS PP foam is 100%-recyclable and is suitable for a wide-range of applications where an improved environmental footprint is sought, as well as lightweighting, insulation and a unique surface feel. These applications can be used in a broad spectrum of industries, such as automotive, building & construction as well as packaging and food service.

Daploy HMS PP foam delivers potentially game-changing solution in food and beverage packaging applications

Daploy HMS PP is based on proprietary Borealis technology and is used in various applications that require more performance from less raw material. The unique long-chain branched (LCB) structure offers superior foamability and homogenous fine cell foam structure — even at lowest densities.

While the product has been commercially available for over 15 years to Borealis and Borouge customers around the world, its beneficial properties and processing technologies make it possible to invent entirely new and tailor-made solutions.

One such example, the drinking cup solution from Reach Plastic Industrial Co., Ltd. based on Daploy HMS PP foam, has ground-breaking potential as a possible replacement for expanded polystyrene and paper/cardboard alternatives. Furthermore, being entirely a mono-material polypropylene solution, this application is fully recyclable.

Convertors and consumers can enjoy a whole range of advantages thanks to this material's unique properties and characteristics:

- Lightweight
- 100%-recyclable mono-material
- Able to be used for a wide working temperature range from -10°C to 125°C
- Easy-to-clean, re-useable service ware
- Eliminates the need for a sleeve or additional second layer of protection when containing hot fluids due to its excellent thermal insulation properties
- Enables high resolution printing directly onto the surface due to its superior surface quality
- Silky, paper-like natural touch and feel
- Excellent anti-acid, anti-alkali and chemical resistance
- Able to be processed with existing paper cup machines, requiring no investment in additional equipment





Photo: Automotive interior solutions

Photo: High melt strength polypropylene (HMS PP) foam food containers. © Borealis

"The continually evolving foam application concepts based on Daploy HMS PP could be true game-changers for the industry," says John Webster, Head of New Business Development, Borealis. "By deepening our cooperation with Reach we continue to deliver on our promise of creating value through our innovations and partnerships in new application areas globally. Our aim is to support our value-chain partners to be in the driving seat when responding to changes in new international legislation and consumer demand in this area."

As part of its commitment to leadership in promoting the circular economy, foam cups used at the K Fair 2016 stand shared by Borealis, Borouge and Nova Chemicals will be collected for recycling by the recent Borealis acquisition mtm plastics, one of Europe's leading producers of post-consumer polyolefin recyclates.

K Fair 2016 takes place from 19 to 26 October in Düsseldorf, Germany. "Join Our Journey" and visit Borealis, Borouge and NOVA Chemicals at Hall 6, Stand 6A43 to learn more.

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About Borealis

Borealis is a leading provider of innovative solutions in the fields of polyolefins, base chemicals and fertilizers. With headquarters in Vienna, Austria, the company currently has around 6,500 employees and operates in over 120 countries. Borealis generated EUR 7.7 billion in sales revenue and a net profit of EUR 988 million in 2015. The International Petroleum Investment Company (IPIC) of Abu Dhabi owns 64% of the company, the remaining 36% belonging to OMV, an international, integrated oil and gas company based in Vienna. 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 more than 50 years of experience in polyolefins, Borealis and Borouge support key industries with a wide range of applications in the areas of energy, automotive, pipes, consumer products, healthcare, and advanced packaging.

The Borouge 3 plant expansion will make Borouge the world's largest integrated polyolefins complex. Once fully ramped up in 2016, the additional 2.5 million tonnes of polyolefins capacity will yield a total Borouge capacity of 4.5 million tonnes, and a combined Borealis and Borouge capacity of 8 million tonnes.

Borealis offers a wide range of base chemicals, including melamine, phenol, acetone, ethylene, propylene, butadiene and pygas, servicing a wide range of industries. Borealis also creates real value for the agricultural industry, selling approximately 5 million tonnes of fertilizers. Technical nitrogen and melamine products complement the portfolio with applications ranging from mono-nitrogen oxide (NOx) abatement to glues and laminates in the wood working industry.

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 work 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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