

Borealis' Bornewables portfolio of circular polypropylene solutions proven to substantially reduce carbon emissions

- **Life-cycle assessment (LCA) shows greenhouse gas emissions of Bornewables™ polypropylene go beyond carbon neutrality: Reduced by at least 120% compared to virgin polypropylene (at Borealis' gate).**
- **The Bornewables™ product range of polyolefins offer the same high performance levels as virgin polyolefins and can be recycled in the same way**
- **EverMinds™ in action: Bornewables help value-chain partners meet their climate and sustainability goals**

Borealis' [Bornewables™ product range](#) of polypropylene provides significantly smaller greenhouse gas (GHG) emissions compared to polyolefins made from fossil-based feedstock, according to a new LCA study.

The study was carried out by [ifeu](#) – one of the world's most recognised, independent ecological institutes – based in Heidelberg, Germany. They analysed the life cycle emissions of Borealis' polypropylene (PP) produced at its production sites in Kallo and Beringen, Belgium, when Neste's renewable feedstock was used in the production to replace conventional feedstock. The study showed that from cradle-to-gate (all steps from the sourcing of raw materials to products leaving Borealis' production site), GHG emissions are reduced by at least 120% (2.7kg of CO₂ equivalent per kg of PP) compared to PP manufactured with fossil-based feedstock at the same location.

Furthermore, the Bornewables are a lower-emissions alternative to virgin PP, no matter which end-of-life option is chosen. Even in case of energy recovery, when the carbon stored in the product is released, the carbon footprint reduction still amounts to 52% compared to PP from fossil-based feedstock.

Helping customers meet their sustainability targets

Now proven to provide significant carbon emissions reductions when compared to virgin PP, the Bornewables are an example of what can be achieved through Borealis' [EverMinds™](#) platform, which promotes innovation and collaboration to accelerate the transition towards a more circular economy. The

Bornewables circular portfolio is produced according to the [mass balance model](#), by replacing conventional feedstock with an identical volume made from ISCC PLUS certified sustainable feedstock.

By choosing the Bornewables, customers can manufacture more sustainable products with reduced carbon footprint, while retaining their recyclability at the same level with their traditional counterparts. Bornewables help customers decouple from resources based on conventional feedstock. All this is possible while avoiding switching costs, and delivering the product quality and safety needed by most demanding applications, such as food packaging, automotive and healthcare.

“Now that a LCA has been carried out on the Bornewables, our customers can rely on this portfolio to reduce GHG emissions,” says Christopher McArdle, Borealis Vice President Polyolefins Strategy & New Business Development. “Life demands progress. As a proven range of circular polyolefins, the Bornewables are an excellent choice for those customers looking for new ways to meet their sustainability targets, without sacrificing product quality or performance. They are another way in which Borealis is reinventing for more sustainable living.”

Watch [this video](#) to learn more about mass balance.

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About Borealis:

Borealis is one of the world's leading providers of advanced and circular polyolefin solutions and a European market leader in base chemicals, fertilizers and the mechanical recycling of plastics. We leverage our polymers expertise and decades of experience to offer value adding, innovative and circular material solutions for key industries. In re-inventing for more sustainable living, we build on our commitment to safety, our people and excellence as we accelerate the transformation to a circular economy and expand our geographical footprint.

With head offices in Vienna, Austria, Borealis employs 6,900 employees and operates in over 120 countries. In 2020, Borealis generated EUR 6.8 billion in sales revenue and a net profit of EUR 589 million. OMV, the Austria-based international oil and gas company, owns 75% of Borealis, while the remaining 25% is owned by a holding company of the Abu-Dhabi based Mubadala. We supply services and products to customers around the globe through Borealis and two important joint ventures: Borouge (with the Abu Dhabi National Oil Company, or ADNOC, based in UAE); and Baystar™ (with Total, based in the US).

About Borealis EverMinds™

Launched in 2018, EverMinds is an umbrella brand uniting the wide range of Borealis activities and initiatives aimed at making plastics more circular. As a dedicated platform, EverMinds promotes a circular mind-set among all Borealis stakeholders. The platform encompasses proprietary Borealis technologies as well as established brands such as Purpolen™ and Dipolen™. It facilitates deeper collaboration between Borealis and its partners in order to develop innovative and sustainable polyolefins solutions based on the circular model of recycling, re-use and design for circularity. EverMinds also extends to pioneering corporate programmes such as Project STOP, and engagement in industry initiatives like the the Polyolefins Circular Economy Platform (PCEP), and Project CEFLEX.

For more information:

www.borealisgroup.com
www.borealiseverminds.com
www.stopoceanplastics.com

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