

Media Release

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Borealis Fibremod™ used to produce first and largest-ever all-thermoplastic tailgate for the new Volkswagen Multivan

- **Collaboration between Borealis and Magna yields largest, lighter-weight tailgate for Volkswagen with high design freedom**
- **Innovative Fibremod™ portfolio helps industry reduce vehicle weight for lower carbon footprint**
- **Borealis and Borouge, leading providers of advanced and circular polyolefin solutions, will showcase successful collaborations with industry partners at the K-Fair 2022 from 19 to 26 October**

Borealis Fibremod™ is used to produce first and largest-ever all-thermoplastic tailgate for the new Volkswagen Multivan. The revolutionary tailgate of the new Volkswagen Multivan demonstrates how customer-centric innovation and collaboration can produce high-performance parts which can lower the overall carbon footprint of vehicles. The Fibremod™ portfolio of lighter-weight polypropylene (PP) compounds is giving Tier One suppliers and OEMs the freedom to design and manufacture more sustainable and lightweight solutions for leading automotive brands and their increasingly electric fleets.

Reduced weight thanks to innovative Fibremod™ compounds

Fibremod™ PP fibre reinforced compounds have a proven track record when it comes to lightweighting for interior, exterior, and under-the-bonnet automotive parts. The proprietary Fibremod long glass fibre reinforced polypropylene (PP-LGF) technology offers excellent fibre impregnation, flexibility in the use of various PP matrices, and the production of grades in customised colours. Fibremod compounds are cost-effective alternatives to conventional metals and engineering plastics-based solutions, as they are highly suitable for injection moulding processes. Moreover, Fibremod LGF compounds boast excellent flowability for smooth processing and low warpage.

The most recent new addition to the Fibremod portfolio has already demonstrated its value as a lightweight design solution and lower-density replacement for conventional engineering polymers. Fibremod GB416LF was specifically tailored for use in tailgate carriers and visible structural parts. As a high-flow, 40% fibre-reinforced material, it fulfils stringent emission and mechanical performance requirements. It also offers excellent surface aesthetics. Using Fibremod GB416LF can eliminate the need for additional surface finishing steps such as painting, making it an even more sustainable alternative.

Fibremod GB416LF used to make the largest-ever PP-LGF tailgate for the new Volkswagen Multivan

The new Volkswagen Multivan is a model with many “firsts”: the first VW bus based on the brand’s MQB modular design construction platform; the first completely redesigned VW Transporter in nearly 20 years; the first Transporter

variant available as a plug-in hybrid (in Europe); and the largest-ever visible interior tailgate structure made using PP-LGF.

Leading Tier One supplier Magna used Fibremod GB416LF to ensure that a range of challenging demands on this part could be met. The tailgate consists of several components; the outer frame and the inner part made of Borealis Fibremod GB416LF, glued together to meet the design and load requirements. Painted exterior parts are glued to the tailgate structure as well. As a loadbearing part, the tailgate must be extremely robust in order to withstand static and dynamic loads. Part of the tailgate also lies in the vehicle's interior, meaning compliance must be assured for emissions, fogging, and odour. Finally, to achieve overall weight reduction for the new Multivan – which weighs around 200 kg less than its immediate predecessor – the tailgate itself must also be lighter. Using Fibremod GB416LF enabled Magna to meet these challenges head-on.

Borealis mobility experts, some of whom are based at Borealis Innovation Headquarters in Linz, Austria, worked closely with Magna during the serial validation process of the PP-LGF tailgate. Borealis uses its sophisticated application testing methods and standards in tandem with its own modelling and simulation methodologies to offer comprehensive support to customers like Magna when developing and implementing new applications based on Fibremod. This can speed up the process by minimising the need for lengthy prototyping and physical testing.

“At Borealis, we use innovation and customer collaboration to accelerate the pace at which mobility becomes more sustainable. Our aim is to work with our industry partners to supply high-performance, polyolefin-based solutions that enable lightweighting and ultimately a lower carbon footprint for vehicles,” says Franck Lagoutte, Borealis Global Commercial Director Mobility. “We are pleased and proud that Fibremod is enhancing the sustainability of the iconic new Volkswagen Multivan.”

Accelerating sustainability in the Automotive Industry

When it comes to accelerating action towards greater sustainability in the automotive industry, the Fibremod portfolio is augmented by other Borealis and Borouge efforts in the circular economy sphere. For example, [Borcycle™](#) grades with post-consumer recycled (PCR) plastics content are helping meet growing industry and end-user demand for high-quality materials that make better use of natural resources. Borealis was recently commissioned to supply Borcycle™ M GD3600SY-9502, a 30% short glass fibre reinforced PP with high post-consumer recycled (PCR) plastic content, for use in the centre console carriers in a leading OEM's 2023 models.

[Borcycle™ M](#) is an ever-advancing technology for mechanical recycling that can transform plastic waste into materials fit for demanding applications. [Borcycle™ C](#) denotes material solutions based on chemical recycling; these are virgin-grade materials suitable for the most demanding applications when it comes to performance and safety. The grades in the [Bornewables™](#) portfolio of circular polyolefin products are manufactured with renewable feedstock. These premium polyolefins offer the same material performance as virgin polyolefins yet are decoupled from fossil fuel-based feedstock.

For more on our circular economy solutions:

<https://www.borealisgroup.com/circular-economy>

For more information regarding the products of Volkswagen Commercial Vehicles please click www.volkswagen-nutzfahrzeuge.de

[K 2022 will take place from 19 to 26 October 2022 in Düsseldorf, Germany.](#)

[We invite you to “Innovate Collaborate Accelerate” together with us by visiting Borealis and Borouge in Hall 6 at Stand A43, where the Mobility solutions will be on display.](#)



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Photo: © Borealis

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About Borealis

Borealis is one of the world's leading providers of advanced and sustainable polyolefin solutions and a European front-runner in polyolefins recycling. In Europe, we are a market leader in base chemicals and fertilizers. We leverage our polymer expertise and decades of experience to offer value adding, innovative and circular material solutions for key industries such as consumer products, energy, healthcare, infrastructure and mobility. In re-inventing essentials for sustainable living, we build on our commitment to safety, our people, innovation and technology, and performance excellence. We are accelerating the transformation to a circular economy of polyolefins and expanding our geographical footprint to better serve our customers around the globe.

With head offices in Vienna, Austria, we employ 6,900 employees and operate in over 120 countries. In 2021, we generated total sales of EUR 12.342 EUR billion and a net profit of EUR 1,396 million. OMV, the Austria-based international oil and gas company, owns 75% of our shares, 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 TotalEnergies, based in the US). www.borealisgroup.com | www.borealiseverminds.com

About Borouge

Borouge, listed on the Abu Dhabi Securities Exchange (ADX symbol "BOROUGE" / ISIN "AEE01072B225"), is a leading petrochemical company that provides innovative and differentiated polyolefin solutions for the energy, infrastructure, mobility, advanced packaging, healthcare and agriculture industries. ADNOC owns a majority 54% stake and Borealis holds a 36% stake in Borouge.

To find out more, visit: borouge.com

About Borealis Mobility: Driving Tomorrow

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.

borealisdrivingtomorrow.com

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