

## Media Release

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# Borealis and value chain partners develop more sustainable flexible packaging formats containing 50% post-consumer recyclate

- **Application development with partners Plastotecnica and ACMI results in fully recyclable multilayer collation shrink film with appealing optics and pack stability**
- **Co-operation with Rani Plast produces fully recyclable tissue packaging boasting excellent processability, printability and packaging line performance**
- **EverMinds™ in action: leveraging packaging and mechanical recycling expertise to lower the carbon footprint of flexible packaging**

Borealis announces that two separate collaborations with long-standing value chain partners have resulted in new, fully recyclable flexible packaging formats, which incorporate 50% post-consumer recyclate (PCR). The use of new low density polyethylene (LDPE) PCR grades developed and produced by mechanical recycling expert Ecoplast, a member of the Borealis Group, have made it possible to achieve a 35% carbon footprint reduction in raw material production when compared to virgin polyolefins, whilst maintaining the same film thickness as with virgin materials. Co-operation in the spirit of [EverMinds™](#) is accelerating plastics circularity by fulfilling industry demand for sustainable flexible packaging solutions with lower environmental impact.

## Borealis, Plastotecnica, and ACMI jointly develop collation shrink film with 50% PCR content

Plastotecnica, a major European producer of polyethylene (PE) packaging; and ACMI SpA, a leading Italian manufacturer of high-tech and flexible bottling and packaging lines and machines, worked together with Borealis to incorporate more PCR material into the multilayer shrink wrap of a beverage multipack. In developing the application, the partners were able to identify the ideal material solution to achieve optimal mechanical and packaging performance (particularly pack stability) whilst obtaining outstanding film optics and printability: the soon-to-be-launched Borcycle™ LDPE PCR grade CWT100VL with very low gel content; BorShape™ FX1003, a mechanical booster based on the proprietary Borstar® technology; and Anteo™ FK2715, a key ingredient for ensuring higher performance and more sustainable multilayer applications. The result is a fully recyclable film containing 50% PCR and a 35% lower carbon footprint in the raw material production process. The shrink film packaging trials were conducted by ACMI.

“Working together with Borealis and ACMI enables us to come nearer to achieving our own objectives with regard to both sustainability and technological innovation,” says Valentina Betto, R&D and Sustainability manager at Plastotecnica. “We have been able to make real progress towards reaching specific goals. These include offering our customers solutions containing high levels of recycled material, exploiting downgauging potential to reduce film thickness, optimising processing parameters and performance, and minimising waste wherever possible.”

## Borealis and Rani Plast develop new tissue packaging incorporating 50% PCR content

As a member of the Rani Group, a leading Nordic producer of smart packaging solutions, Rani Plast used its film and production expertise to work together with polymers experts at Borealis to develop a film structure for more sustainable flexible packaging used for tissue paper products such as kitchen roll (paper towels) and toilet paper. As an improved version of its predecessor NAV 101, the soon-to-be-launched Borcycle™ M LDPE PCR grade NAV 101L is best in class when it comes to balancing gel performance and circularity. Manufactured using household post-consumer and commercial waste, its gel content is significantly lower in order to provide excellent processability. It also offers excellent printability and optics. Combined with the Borstar® technology-based mechanical booster BorShape™ FX1003, the grade delivers optimal mechanical performance, thus enabling the incorporation of more than 50% PCR content without increasing film thickness. Finally, Anteo FK2715 provides enhanced sealing, good optics and reinforced stiffness performance.

“As a fellow participant in the Finnish R&D initiative **SPiRiT** – Sustainable Plastics Industry Transformation – we are glad to deepen our co-operation with Borealis in the area of flexible packaging,” says Mats Albäck, Sustainability and Development Director at Rani Plast. “This successful project is proof that we as an industry can do more with less when we take joint action: improved material performance and greater sustainability, but with reduced consumption of natural resources and energy.”

“It’s gratifying to see the accumulation of sustainability success stories originating within the EverMinds platform for accelerating plastics circularity,” says Peter Voortmans, Borealis Global Commercial Director Consumer Products. “Mechanical recycling plays a crucial role in our integrated circular cascade approach. We offer a wide portfolio of versatile materials of consistently high quality, which are fit for a broad range of needs and demanding applications. Together with our partners, we are re-inventing essentials for sustainable living.”

**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 flexible packaging solutions developed with value chain partners Rani Plast as well as Plastotecnica and ACMI will be on display.**



Application development with partners Plastotecnica and ACMI results in fully recyclable multilayer collation shrink film with appealing optics and pack stability  
Photo: © Borealis



Co-operation with Rani Plast produces fully recyclable tissue packaging boasting excellent processability, printability and packaging line performance  
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 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](http://www.borealisgroup.com) | [www.borealiseverminds.com](http://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](http://borouge.com)

#### **About Plastotecnica**

Plastotecnica was founded in 1976, as a family business, in Padova, Italy. The initiative and ideas of the owners, together with the skills of the collaborators, ensured that the company developed rapidly. Today, more than 45 years later, Plastotecnica ranks among the top five polyethylene film extruder companies in Europe, producing annually more than 106 thousand tons of flexible packaging with state-of-the-art technology, and where more than 400 people, day after day, are committed to guaranteeing the best customer experience. Plastotecnica focuses on the client's needs, providing solutions that combine performance, economy, and service in a single product. We advise the customer from the development of the article through to after-sales service, guaranteeing high levels of quality.

#### **About ACMI**

Founded in 1984 in the province of Parma, Italy, ACMI is a private company. The company was born and grew up in the world of secondary packaging systems and ends-of-line, specialising in the beverage, food and pet food sectors. The rich cultural heritage in terms of know-how, the important technological level achieved and the remarkable organisational flexibility make ACMI one of the most respected companies in the packaging engineering on a global scale.

#### **About Rani Plast**

Rani Plast is a family-owned international company with nine factories in five countries. The company has a turnover of over EUR 250 million and exports its products to 60 countries. We supply a high-quality and comprehensive range of industrial and agricultural packaging films. Our films are thinner and stronger than conventional films and are used for minimising food waste, improving transport efficiency and reducing the environmental impact of products.

EverMinds, Borcycle, BorShape and Anteo are trademarks of Borealis AG.  
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