

Press information

90 percent recycling rate by 2030: Kuraray joins 4evergreen alliance for innovative circular concepts for fibre-based packaging

The 4evergreen alliance aims to raise the recycling rate of fibre-based packaging in Europe to 90 percent by 2030. As a new member of this alliance, Kuraray is now contributing its experience, for example, to develop uniform Europe-wide recycling standards.

Hattersheim, March 17, 2022. Fibre-based packaging is a sustainable alternative to glass, metal and plastic. In particular, paper and cardboard have benefits for recycling. According to the European Union, across Europe 82 percent of paper and cardboard is already recycled. The 4evergreen alliance aims to make even better use of the recycling potential and increase the recycling rate of fibre-based packaging to 90 percent by 2030 - an important step towards a climate-neutral and sustainable world. To achieve this, the initiative brings together companies from across the value chain. Global speciality chemicals producer Kuraray, which has its European headquarters in Hattersheim, Germany, has now become a member of the alliance, reinforcing their commitment to sustainability. Kuraray markets a wide range of materials that can greatly improve the performance of fibre-based packaging, for example, the Eval[™] brand of EVOH copolymers, Plantic[™], a starch-based thermoplastic made from renewable raw materials, and the Kuraray Poval™ brand of PVOH polymers. These polymers can be used to produce packaging paper with an excellent gas barrier.

"Efficient recycling plays a central role in tackling the environmental and climate challenges of the coming years," says Dr. Naomi Winckelmans, Account Manager and Technical Service Lab Engineer at Kuraray's Belgian subsidiary EVAL Europe N.V. "Many companies already use fibre-based materials for demanding packaging solutions and the trend will gain momentum in the future. As a crossindustry alliance, 4evergreen is developing guidance for packaging design and circularity that will greatly improve the sustainability profile of packaging in the future. That's an important step for environmental protection and the climate. As a leading speciality chemicals producer, we're happy to play our part and support our partners in the industry."

Cross-sector cooperation for efficient recycling

The 4evergreen alliance was created in 2019 from an initiative launched by the Confederation of European Paper Industries (Cepi). Today, around 90 leading companies from all areas of the packaging chain are involved in this project: from pulp, paper and packaging producers to recycling firms. The alliance also includes

representatives of science and research, technology providers from the machinery industry and well-known manufacturers of branded goods. Four workstreams are developing a standardized recyclability evaluation protocol for fibre-based packaging, guidelines for the design of recyclable packaging and standards for efficient collection and sorting of packaging waste, as well as investigating innovative technologies.

Packaging for a fully circular system

Kuraray is involved in all workstreams. In particular, it can contribute its expertise to the development of the recyclability evaluation protocol and the circularity-by-design guidelines for fibre-based packaging. "We have a great deal of experience in the development of materials with high oxygen barrier properties for the packaging industry. Many of our polymers allow the production of high-performance packaging with a good sustainability profile," says Jens-Mikael Gottberg, Regional Marketing Manager at Kuraray Poval. "Our Exceval™ water-based PVOH coatings are an excellent example. This copolymer give paper packaging an excellent barrier to oxygen, grease and oil and can be used in food packaging that is fully recyclable in the paper recycling system. Exceval™ is already used for other applications in the paper industry and can be integrated well into established circular systems."

Another product in Kuraray's portfolio that contributes to more sustainable packaging is the extrudable barrier material Eval[™]. Multilayer packaging with this polymer can be processed efficiently in existing recycling systems, providing they have the necessary separation systems. Kuraray also produces Plantic[™], an effective barrier film made from up to 80 percent renewable raw materials such as corn starch. "Our products offer a wide range of options for sustainable and efficient packaging design," says Jens-Mikael Gottberg. "As a member of the 4evergreen alliance, we will be working with partners from industry on a harmonized recycling evaluation protocol and packaging guidelines for the whole of Europe. That will enable us to use the potential of our products even better and jointly develop packaging that meets the requirements for functioning circular systems. This cross-sector approach is an opportunity to come up with first-class solutions."



Captions/source of photos: Kuraray

[Photo 1] A holistic approach for a high recycling rate: The 4evergreen alliance wants to achieve a recycling rate of 90 percent for fibre-based packaging by 2030. More than 80 companies across the value chain are working together to achieve that. The latest member is speciality chemicals producer Kuraray. (Chart: 4evergreen alliance)



[Photo 2] "We are delighted to have welcomed Kuraray to the alliance," says Susanne Haase Program Director, 4evergreen. "Their experience and expertise will be invaluable in the development of our guidelines and protocol. We strongly believe that through increasing our member base and coverage of the value chain, the work we deliver will represent the state-of-the-art for the packaging industry, helping us to build a climate-neutral future." (Photo: 4evergreen alliance)



[Photo 3] "Efficient recycling plays a central role in tackling the environmental and climate challenges of the coming years," says Dr. Naomi Winckelmans, Account Manager and Technical Service Lab Engineer at Kuraray's subsidiary EVAL Europe N.V. "The 4evergreen alliance is an important initiative for a holistic, crosssector approach. As a leading speciality chemicals producer, we're happy to play our part." (Photo: Kuraray)



[Photo 4] "With materials like EvalTM, ExcevalTM and PlanticTM we offer the industry a wide range of options for sustainable and efficient packaging design," says Jens-Mikael Gottberg, Regional Marketing Manager at Kuraray Poval. "4evergreen's cross-industry approach enables us to use our know-how in the joint development of packaging solutions that meet the requirements of all stages in the circular system." (Photo: Kuraray)



[Photos 5 and 6] High-quality materials for sustainable packaging: Kuraray's Exceval^M water-soluble polymers coatings and Eval^M extrudable EVOH copolymer can be used for high-performance barrier materials for packaging with a favourable sustainability profile. Kuraray also produces Plantic^M, a barrier film made from up to 80 percent renewable raw materials. Kuraray is now contributing this know-how to the 4evergreen alliance. (Photos: Kuraray)

About 4evergreen

4evergreen is a cross-industry alliance perfecting the circularity of fibre-based packaging to contribute to a climateneutral and sustainable society. Our goal is to raise the overall recycling rate of fibre-based packaging to 90% by 2030. We bring a particular focus on packaging with a lower circularity performance today, namely the types used for household, outof-home and on-the-go consumption. The alliance brings together industry representatives from across the fibre-based packaging value-chain, from pulp, paper and board manufacturers and recyclers to packaging producers and converters, including brand owners, retailers, and waste management companies. It also comprises non-fibre material suppliers (e.g., adhesives, inks, coatings), technology providers



suppliers (e.g., adhesives, inks, coatings), technology providers (e.g., machinery, collection, and recycling solutions), and leading research institutes.

To date, 4evergreen brings together around 90 market leaders representing all the players of the fibre-based packaging value chain (find a list of members here). The host of the initiative is Cepi (the Confederation of European Paper Industries), headquartered in Brussels.

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About Kuraray

Established in 1991, Kuraray Europe GmbH is based in Hattersheim, near Frankfurt am Main, Germany. In 2020 the company generated annual sales of EUR 593 million. It has more than 800 employees in Germany at its sites in Hattersheim, Frankfurt and Troisdorf. Kuraray is a global speciality chemicals company and one of the largest suppliers of industrial polymers and synthetic microfibres for many sectors of industry. Examples are Kuraray Poval[™], Mowital[®], Trosifol[®] and Clearfil[™]. Kuraray Europe also has around 215 employees at six other European sites. They are also working on the development and application of innovative high-performance materials for a wide range of sectors, including the automotive, paper, glass and packaging industries, as well as for architects and dentists.

Kuraray Europe is a wholly owned subsidiary of the publicly listed Kuraray Co., Ltd., which is based in Tokyo, Japan, and has more than 11,200 employees worldwide and sales of EUR 4.4 billion.

The press release and photos are also available on our website: https://www.kuraray.eu/company/media

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