

## **K 2022: Kuraray Drives Circular Economy with PLANTIC™ Biopolymer**

Hattersheim/Frankfurt am Main, **October 11**, 2022. For Kuraray, the globally active specialty chemicals company headquartered in Japan, the focus at K 2022, the world's leading trade fair for the plastics industry (Düsseldorf, 19-26 October 2022, Hall 7a / Booth D06), will also be on the industry's trend topics: from climate protection to the circular economy. Kuraray will be showing innovative products for a more sustainable future: for example, the biopolymer PLANTIC™. With the PLANTIC™ film derived from biomass, innovative food packaging is possible that meets all requirements for sustainability and functionality. As a water-soluble and biodegradable gas barrier film, PLANTIC™ opens up completely new possibilities for environmentally friendly packaging concepts for brand owners and converters from the food industry.

### **Biobased and Biodegradable**

PLANTIC™ film consists of more than 80 percent corn starch, a renewable and fully biodegradable raw material. Thanks to its high gas barrier properties, the high-performance film enables the development of sustainable multilayer packaging that effectively blocks oxygen and optimally preserves flavors. PLANTIC™ is therefore just as suitable for packaging foods with a prolonged shelf life in a modified atmosphere (MAP) as it is for odor-proof packaging of dry foods, from coffee and tea to dry animal feed. Whether bag, tray, tube or folding pouch, whether combined with paper or plastics: PLANTIC™ film is versatile and can be processed with extrusion coating, lamination and extrusion lamination. An inner sealing layer - made of polyethylene, polybutylene succinate or polybutylene adipate terephthalate, for example - can act as a moisture barrier if required.

### **Easily Repulpable Paper Packaging**

By combining gas barrier properties with water solubility, PLANTIC™ points the way to the circular economy. PLANTIC™ also opens up new possibilities for creating paper packaging for food that is as sustainable as it is high quality. Because the PLANTIC™ film simply disintegrates in water, additional inner sealing layers can also be cleanly separated from paper in the repulping process. This increases the yield of paper fibres during repulping - resulting in a pulp end product without inclusions and impurities. In addition, PLANTIC™ starch particles are completely biodegradable in the wastewater.

Even in conventional PET recycling streams, the PLANTIC™ film disintegrates during hot washing and can be biodegraded by microorganisms to biomass, CO<sub>2</sub> and water.

### **Industrial and Home Compostable**

In addition, PLANTIC™ is certified for both industrial and home composting. With PLANTIC™ as a gas barrier, fully compostable packaging becomes possible in combination with other compostable materials. PLANTIC™ contains no plasticizers, is produced without genetically modified raw materials, does not compete directly with food production and consumes up to 40 percent less energy in production compared to conventional polymers.

### **Synthesis of Sustainability and Protective Function**

"We see a great demand for materials that improve the sustainability profile of packaging," says Stefan Corbus, Market Development Engineer at Kuraray. "Food packaging is particularly demanding, because here ecological aspects must go hand in hand with functional properties - the sensitive food must be perfectly protected by its packaging. Many brand owners are already well on their way here, and with PLANTIC™, Kuraray is making an important contribution to enabling our customers in the food industry to develop innovative packaging solutions."

### **Organic Certifications**

Plantic Technologies Ltd. has been a part of Kuraray Group since 2015. Awarded numerous science and industry awards, it is one of the world's leading innovators in biodegradable, compostable and renewable alternatives to conventional plastics. PLANTIC™ is certified for renewable content, biodegradability in soil and water and compostability by independent international testing and certification companies in numerous countries, including TÜV Austria.

### **About Kuraray**

Established in 1991, Kuraray Europe GmbH is based in Hattersheim, near Frankfurt am Main, Germany. In 2021 the company generated annual sales of EUR 1.1 billion. It has more than 820 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 11,330 employees worldwide and sales of EUR 4.8 billion.

This press information including images is available at: <https://www.kuraray.eu/>

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