

Press Information

Equipolymers and RITTEC announce cooperation

PET manufacturer Equipolymers moves closer to circular economy solutions with new Rittec technology

- Goal to meet growing demand for food-grade rPET
- Significantly increase recycling content in PET pellets for food contact
- Further replacement of fossil raw materials
- Rittec revolPET technology provides basis for recycled raw materials for virgin-grade PET

Schkopau/Lüneburg 26.04.2022 – PET manufacturer Equipolymers and technology Start-up Rittec Umwelttechnik announced their cooperation in Schkopau today. By the development and implementation of Rittec's revolPET process into Equipolymers' PET manufacturing plant the recycling content of food contact PET is targeted to be increased significantly.

Mechanical PET recycling has been established in the European market for many years. But possible input materials for mechanical recycling processes are limited. For example, multilayer materials, widely used in the packaging sector or heavily colored PET containers are very difficult to recycle. In addition, while PET practically is unlimitedly and 100% recyclable, multiple mechanical recycling loops can reduce the optical properties of the recycled PET.

Due to the insufficient availability of high quality post-consumer PET, increased recycling volumes are difficult to achieve with existing technologies. The proportion of recycled PET, for example in Germany is currently only around 26 percent on average (source: [IFEU study](#)).

With revolPET, Rittec provides a technology solution to overcome these boundaries. The use of this new chemical recycling solution, commonly defined as back-to-monomer process, makes it possible to reprocess PET plastics into virgin grade quality. The continuous recycling process can be operated with high throughput rates.

Substitution of virgin monomers within feasible reach

Lab-scale polymerization tests have shown promising results. "Verified by the laboratory results the replacement of virgin monomers is within feasible reach for us", says development manager Olaf Hempel from Equipolymers. That is why the partners are aiming for further cooperation to achieve their goals.

"Our revolPET technology can make an enormous contribution to the circular plastics economy", comments Carsten Eichert, Rittec founder and managing director. "We want to prove that our basic PET components produced from post-consumer waste meet food contact standards." And he adds, " We are excited about the partnership with Equipolymers. It allows us to demonstrate the marketability of monomers from our process."

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About RITTEC Umwelttechnik GmbH

Rittec was founded in 2017 with headquarter in Lüneburg. The company is specialized in the development of technological recycling solutions for the world of plastics. With the patented revolPET technology, Rittec makes a valuable contribution to the ecological and economic development of PET recycling. For the opening of new value creation options, Rittec Umwelttechnik and the revolPET process were awarded the Founder's Prize of the German Sustainability Award, the Next Economy Award 2021.

More at: <https://www.rittec.eu>

About Equipolymers

Equipolymers GmbH is a wholly owned subsidiary of EQUATE Petrochemical Company (EQUATE) and the EQUATE Group. Equipolymers produces and markets polyethylene terephthalates (PET). Equipolymers' goal is to be a leading global PET producer in the field of sustainability. Equipolymers was founded in 2004 and has become a recognized partner for brand manufacturers and PET processors, to whom it supplies its products throughout Europe in outstanding quality and reliability.

The production capacity of the two plants in Schkopau, Germany, is 335,000 tons of PET per year. In 2019, Equipolymers launched its latest innovation, Viridis 25, a PET for food packaging in which 25 percent of the raw materials come from chemically recycled post-consumer PET. Viridis 25 reduces the need for virgin PET and thus creates advantages for the economy, environment and society.

More at: <https://www.equipolymers.com/>

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About revolPET®

revolPET is a patented recycling technology that turns PET waste into high-quality products comparable with virgin quality. The aim is to create new value creation options for post-consumer and post-production waste. The development of the revolPET technology was funded as part of the BMBF research programme "Plastics in the Environment". In addition to RITTEC Umwelttechnik GmbH, project partners were the Institute for Chemical and Thermal Process Engineering (ICTV) and the Institute for Machine Tools and Manufacturing Technology (IWF) of the TU Braunschweig, Fraunhofer ICT, Reclay Systems GmbH, SCHILLER Apparatebau GmbH and VTU Engineering Deutschland GmbH.



Image 1: Carsten Eichert, Founder & Managing Director, RITTEC Umwelttechnik GmbH



Image 2: Olaf Hempel, Development Manager, Equipolymers GmbH

