



Many food packaging consists of several layers of different plastics. These are usually sent to energy recovery and/or end up in landfills.

The recycling revolution for PET-composites

Our patented revolPET® recycling process enables the production of monomers from previously non-recyclable PET mixed plastics and polyester-containing textiles in new high-quality products.

High-quality recyclates from PET-multilayer packaging and polyester textiles - waste becomes raw materials.

Brand Owners

- Ensures extended product responsibility
- Transparency regarding recycling quotes and material composition

Consumers

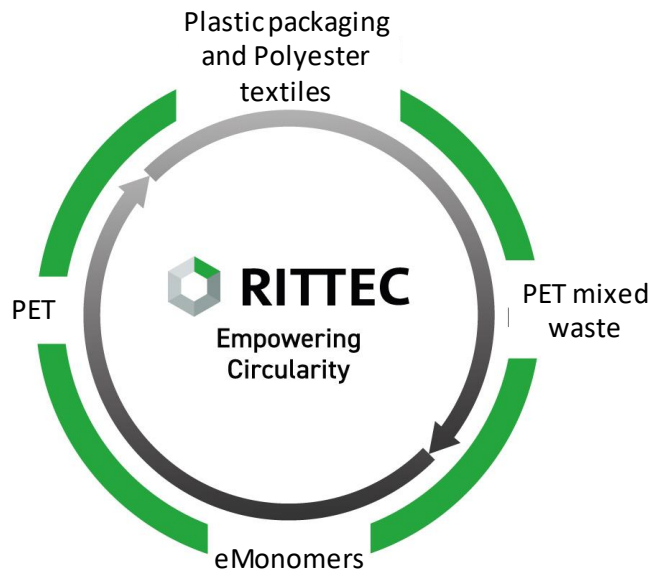
- Resource-conserving and sustainable living and shopping

“The revolPET® technology breaks down PET-containing waste selectively and continuously. It opens new fractions for a circular economy.”

Carsten Eichert,
CEO RITTEC Umwelttechnik

Find out more

RITTEC Umwelttechnik GmbH
Moorweide 13
21339 Lüneburg
www.rittec.eu
info@rittec.eu



Raw material manufacturers

- Obtaining PET from high-quality secondary raw materials
- Food contact quality
- Highest recyclate quality ensures broad applications for reuse

Recycling Companies

- Conversion of disposal costs into sustainable revenue streams
- Transparent reporting of material flows

Circular recycling solution: The revolPET® technology



Opening new paths to create value

The revolPET® technology is extremely efficient: low process temperatures, integrated circuits and no reaction additives minimize costs and CO₂ emissions. The high quality of the PET building blocks obtained (terephthalic acid and ethylene glycol), enables the reuse and revenues comparing to new goods produced from the crude oil route. These are the prerequisites for economic viability.



The patented revolPET® technology extracts raw materials from previously "hard-to-recycle" waste fractions and creates a new flow of valuable materials.

revolPET®: Offering a solution for recycling challenges

- recycling of PET colored bottles, Multilayer PET-packaging and polyester textiles
- Increase the proportion of recycled raw materials in packaging
- Compliance with recycling quotas for packaging products
- Delivers alternative raw material sources
- Provision of reliable data for the life cycle assessment (LCA)



In addition to the recovery of monomers from PET mixed plastics, polyester-containing textile waste can also be recycled with the revolPET® technology.

Selective depolymerization by revolPET® makes the raw materials from PET-multilayer composites and polyester textiles accessible again



Separation of non-PET-containing substances, e.g. polyolefins.

- Selective depolymerization of PET
- PET conversion up to 97 %
- Continuous process using proven extruder technology
- Residence time under 1 min
- Robust and scalable
- Low sorting and processing effort
- Pure and high-quality raw materials suitable for food contact applications
- Both ecologically and economically attractive
- Saving of 33% CO₂-eq. to produce new PET comparing to the crude oil route
- Example: 20.000 t/a; Input 100 % PET; Return on Sales 16 %

 **REVOLPET®**

 **REVOLTEX®**