Semi-Chemical Recycled PET Bottle Resin

SHINKONG
SYNTHETIC FIBERS
CORPORATION

Aug 2023

rPET is the Future

- PET has the highest recycling rate of all plastics around 30-90 %.
- The carbon footprint of the rPET process is much less than that of re-manufactured glass bottles.
- rPET is the only recycled plastic that can be used in food contact approved by US FDA, EU EFSA, Japan MHLW.

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Announcements to Achieve

Coca-Cola	pepsi	Nestlé	DANONE ONE PLANET. ONE HEALTH
2030	**2025**	**2025**	**2025**
rPET > 50%	rPET > 33%	rPET > 35%	rPET > 50%

Asahi	ITO EN	KIRIN	SUNTORY
2030	**2030**	**2027**	**2030**
rPET > 60%	rPET in Tea products = 100%	rPET > 50%	rPET > 70%

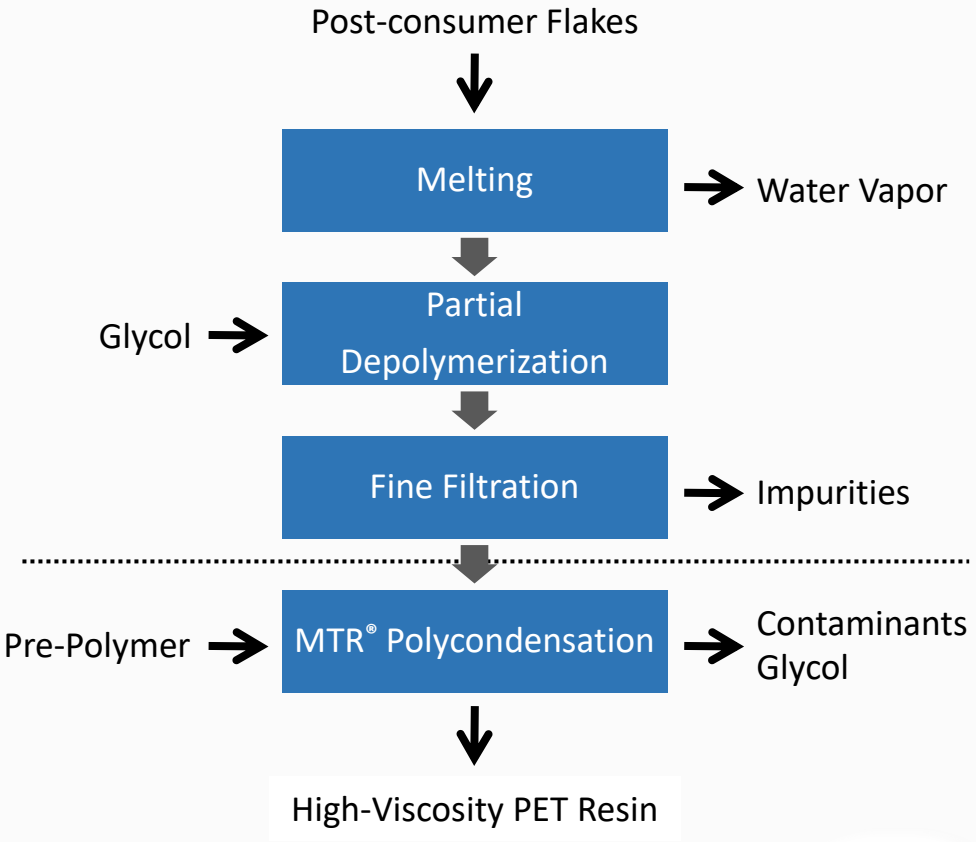
Carbon Neutrality Environment Sustainability Economy Circularity

MTR® = Melt-To-Resin Source: UIF

FTR® Flakes-To-Resin

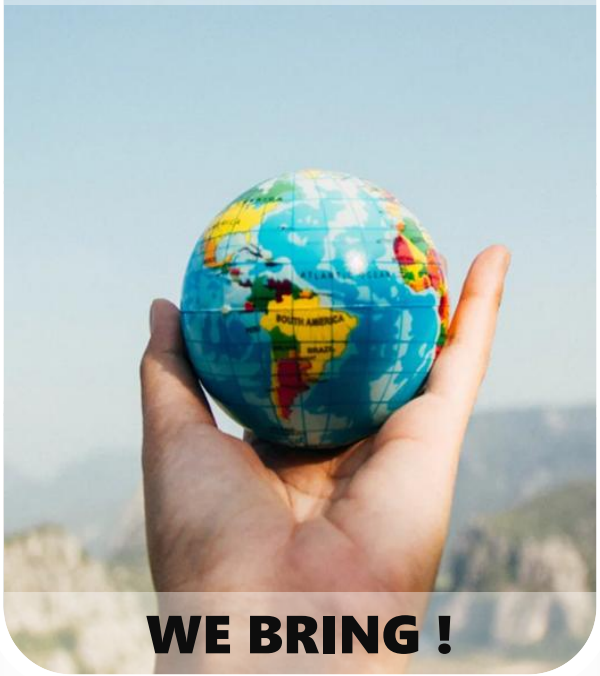
Fully integrated high-quality semi-chemical PET recycling process:

- Filtration of material at a low viscosity level, which makes it easier to remove impurities
- Elimination of impurities & rebuild to virgin-like PET



FTR cr-PET v.s. 100% mr-PET

ADVANTAGES



1. Reduce Equipment Investment and Labor
2. Better and More Steady Blending
   - Consistent Quality
3. Flexible rPET Content up to 50%
4. Simple Inventory Management
5. Better Purity
6. Maintain a Stable Composition as Virgin PET

FTR cr-PET is Better on

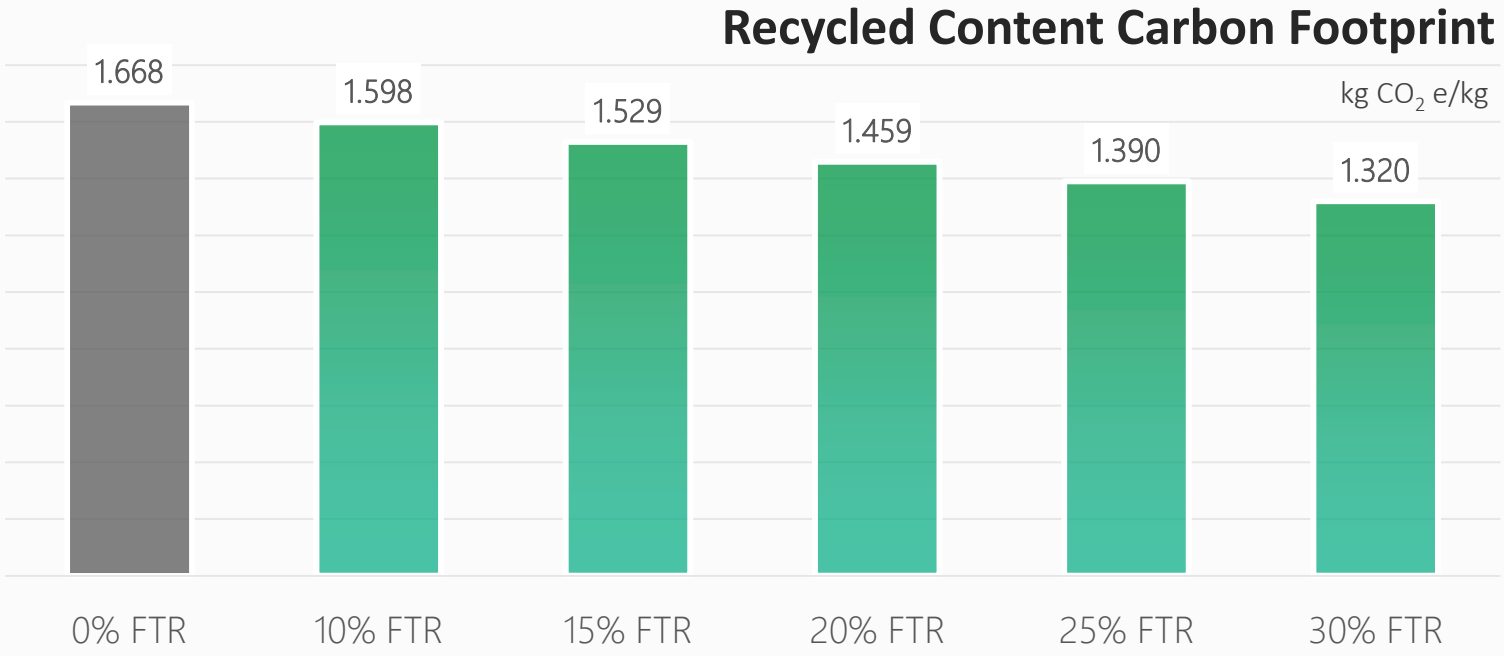
Comparing with

Petrochemical v-PET

- ✔ Reduce Equipment Investment & Labor
- ✔ Steady Blending
- ✔ Flexible rPET Content up to 50%
- ✔ Simple Inventory Management
- ✔ Reduce Carbon Footprint

Source: UIF

Low-Carbon is Healthy to THE Earth



The graph show industrial Average PET with no FTR, and then 5 to 30% FTR content

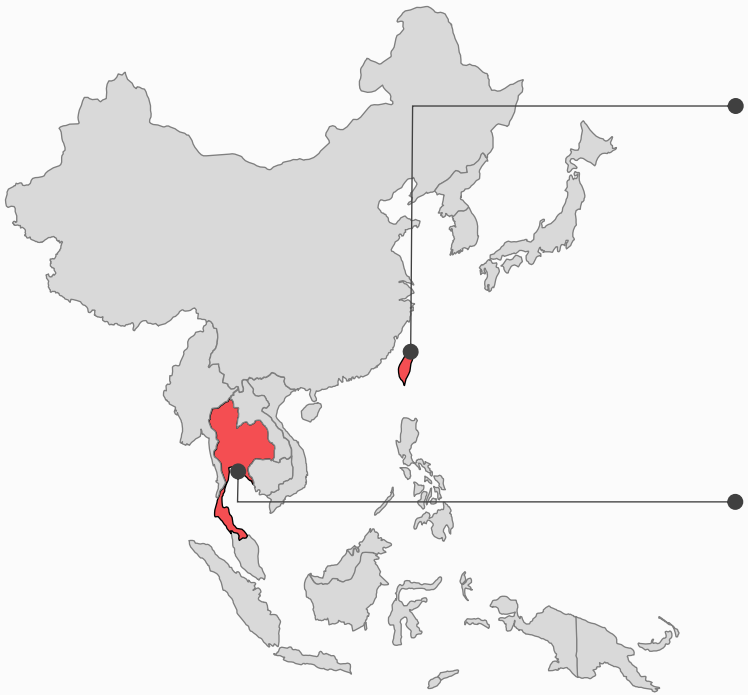
Clean for Food Contact

- All contaminants are removed from the product at the latest in the DICAGE® reactor, which can be regarded as the most efficient degassing device.
- Cleaning efficiency has been tested successfully in a challenge test.
- FTR® is approved by US Food and Drug Administration (FDA) and by the European EFSA for food-contact applications.

efsa
European Food Safety Authority

FDA

PET Resin Production Sites & Capacity



Taiwan

2 sets of Virgin PET
320,000 metric ton/year

1 set of Recycled PET *Mechanical*
28,000 metric ton/year

Thailand

1 set of Virgin PET
180,000 metric ton/year

1 set of Switchable 30% rPET
Semi-Chemical
210,000 metric ton/year

Compare Petro Virgin & 3 Recycling Processes of PET

	Petro Virgin	Mechanical	Semi-Chemical	Chemical
Carbon Footprint	High	Low	Low	Low
Global Capacity	≈ 46,000	≈ 2,200	≈ 600	≈ 235 k·ton/year
Purity	High	Medium	High	High
Single-Pellet	✔	✘	✔	✔

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