# creating circularity ackaging

## Transitioning towards a more circular future in food packaging with Tray rPET by Faerch

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### We are a global leader in rigid food packaging and the world's first integrated tray recycler

Faerch at a glance





RECYCLING CAPACITY IN TONNES OF PET HOUSEHOLD WASTE











Status per June 2024

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\* The share of products designed for circularity means the weight of products, where the recycled material can feed a closed-loop scheme to be used in the same quality applications (e.g. tray-to-tray). Currently, it is only mono-PET products that are accepted as products designed for circularity. This is taken relatively to the total weight sold by Faerch.



### Faerch offers packaging solutions for various markets

Faerch Product Offering by Segments – Overview



## **PET is the only material enabling true circularity: Recycling food packaging back into new food packaging**



Cannot be recycled back into food-contact applications

recyclable back into products of the same quality i.e. food packaging back into food packaging



## Faerch are creating true circularity in food packaging working collaboratively to transition towards a more sustainable future

The installation of Faerch's tray recycling line has moved the dial for both Faerch and the entire industry. Faerch's innovative recycling process produces a circular food-grade PET stream.



# Fact

Transforming waste into valuable resources



## Tray rPET is clear and mixed coloured plastic pellets made from food packaging consumer waste, and the material can be recycled again and again

Washing incl. Vacuum Flakes and flood sink and Flake sorting reactor / Bales supply Input station Pre-washing Tray sorting Grinding Pellets Pelletizing rinsing Storage of flakes and Grinding before Input bales from Transportation to Soft pre-washing of Pre-sorting of Material washing Elutriator Removal of pellets in big bags washing to volatiles waste companies input station by input material separated PET or silos available in different truck c. 10mm Caustic, detergent Size separation grades Friction-based Polymer Sorting and high-Decontamination Debaling washing (no temperature Colour sorting Sourced from chemicals) Removal of (+75°C) washing Mechanical filtration different countries non- PET trays / Metal+polymer Metal Sorting across Europe (magnet + eddy lidding Removal of dirt and sorting label adhesive current, Ferro+Alu) **Film Separation** Flood sink separation Mechanical drying

#### From Post Consumer Waste to food safe Tray pellets



## Currently the food packaging value chain is linear

Let us turn waste into valuable resources and create a circular loop for the materials



## To achieve true circularity we need a balanced waste stream and "stop stealing"





## At Faerch we produce tray rPET at scale

- The installation of Faerch's tray line has been a game changer for both Faerch and the entire industry.
- Faerch's innovative recycling process produces two circular food-grade PET streams coloured and non-coloured. This approach supports future-proof business models, strengthens brands, lowers emissions, and promotes a healthier environment.



## **From Clarity to Circularity**

Tray rPET contains contaminants.

Higher Tray rPET content visually reflects the circular content they are made from

- Benefit:
  - Strong consumer appeal.
    Consumers have a clear preference for packaging with recycled content and accept increased haziness or discolouration due to recycled content\*



Tray-to-Tray rPET content



\*The study »Closing the Perception-Reality Gap for Sustainable Fresh Food Plastic Packaging, 2024« finds that slight discolouration due to recycled materials is accepted, and even more so when consumers are informed about it.



## By using Tray rPET carbon emissions can be reduced by 58% compared to virgin PET and 36% compared to Bottle rPET

Reduction in kg CO2-eq per kg material (%)\*



\*This estimation is only based on the raw material input alone and not a full product carbon footprint. Data is from Ecoinvent version 3.10 for virgin PET and bottle rPET production. Emission data for "Tray rPET" is preliminary results from our recycling site Cirrec. The allocation procedure follows EU PEF methodology, accounting for the different market realities for bottle and tray rPET, which results in differences in the allocation factor "A" (Abottle=0.5, ATray=0.2) and thereby differences in the benefits attributed to the recycled material. 12



#### The path to net-zero: Sustainable by design

In addition to conscious material use, we must collaborate at various levels and across the value chain







## **Danish Crown**

Faerch

Choose the No.1 in Food Packaging

Customer Success Stories: Evolve by Faerch

## A goodbye to black meat trays to increase the recyclability

#### Evolve by Faerch

- Meat trays made of black PET are currently not detectable with the sorting technology used by Danish recyclers, a limitation that leads to trays being incinerated instead of being recycled.
- Danish Crown is actively addressing this challenge by changing the colour of millions of meat trays from black to the green Evolve by Faerch trays.
- In addition to enabling increased tray recycling, the new trays will be composed of at least 90 percent recycled plastic.
- Other Customer Success Stories to come:
  - Material conversion in Dairy (e.g. Arla from PS to PET)

#### **Our closed loop- solutions**

Control over the product throughout its entire consumption journey





#### With a clear focus to increase the use of circular content in our products

Current Faerch Achievements



Tripling recycling capacity with the second tray recycling line at Cirrec

## 27,100,000

Food trays produced for circularity - every day



3/21\*

Circularity Ratio

60,000

Recycling capacity in tonnes of PET

household waste



57%

Average amount of post-consumer recycled content in our PET products





## Legislation – current and upcoming – is a game changer for the packaging industry

Circularity becomes a key principle from design to end-of-life



 Packaging and Packaging Waste Regulation (PPWR) -A European Directive

Harmonises national law and promotes reuse, recycling and other forms of recovering of packaging waste.

Regulations in different areas set clear targets for recycled content and more resource-efficient solutions.



#### Life Cycle Assessments (LCAs) -Green Claims

Requirements for stronger fact-based communication (eg. Life Cycle Assessments (LCAs) and third-party validation).



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#### Extended Producer Responsibility (EPR) -Fees and Plastic Taxes

Implementing end of life responsibility as part of transition towards sustainable packaging.

## Thank you for your attention

Any questions? We are happy to help and looking forward to hearing from you.

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For more news and updates follow us and visit our website **www.faerch.com** 



