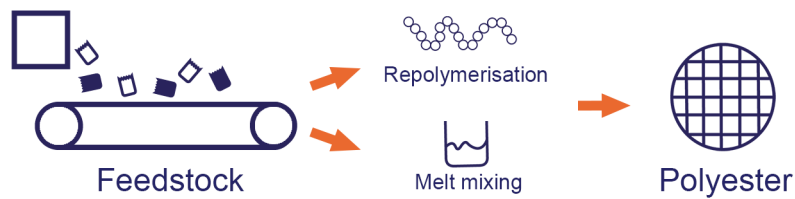


Polyester recycling by Celanese and Swerea



Recycled PET pellets and an innovative catalyst are driving sustainable developments in polyester recycling in Trash-2-Cash.

There is a great need to convert material not qualified for reuse into high value virgin textile fibre, thereby realising the sustainable utilisation of textile resources.

Key partners involved in Polyester recycling are Celanese and Swerea. Celanese develop Recycled PET pellets and Swerea focus on the development of a catalyst that activates depolymerisation of polyester at a low temperature.

The recycled pellets are used for both injection moulding and melt mixing processes. Injection moulding results in the production of composites and melt mixing into upcycled polyester yarn. Celanese are also directly involved in the melt mixing process, transforming recycled polyester in the form of fluff using advanced extrusion methods.

The polyester recycling approach, developed by Swerea IVF in Sweden, uses a mild chemical method to depolymerize. This method is used on pure polyester as well as cotton/polyester blends. The obtained monomers are easily purified from dyes and finishes, and are subsequently suitable for use as raw materials for virgin polyester production.

Compared to polyester synthesized directly from crude oil, polyester made from a regeneration process consumes less energy and releases less CO₂. Taking this process forward means the fashion industry's dependence on finite and unsustainable resources will decrease along with the raw material costs.

For further information about technical processing please contact:

Celanese
 Ms Raffaella Battelli
 T: +49 (0) 69 45009 1574
 E: Raffaella.Battelli@celanese.com
 W: <https://www.celanese.com/>

Swerea
 Ms Lisa Schwarz Bour
 T: +46 (0)31-706 63 58
 E: lisa.bour@swerea.se
 W: <https://www.swerea.se>