



Recycling PET bottles to polyester

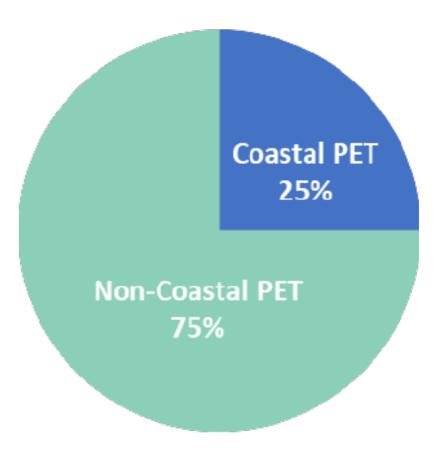
8 million tons of plastic waste ends in the ocean from coastal nations annu-ally . In 2020, 13.1 million tons of PET bottles were produced worldwide.

With global production of plastic to double by 2050, plastic pollution is a pressing issue to safeguard the health of marine life, the eco-system, and ultimately, human livelihoods. To prevent plastic entering natural waters in the first place, we have team up with Globalturq Group to recycle plastic waste from coast-al regions into polyester filament, which then can be used in countless types of products.

Traceability

With increasing stakeholder expectations to businesses with global supply chains, traceability of materials is now more important than ever. In order to tell a sustainable and circular story, it is also important to know the background of the material used. Besides that, it is important in order to ensure quality and compliance.

Globalturq recycled polyester filament and staple fibre is traceable all the way to the col-lection centre and information can be pro-vided over the precise sourcing region of the PET material. Globalturq collection centres are compliant and qualified to ensure the quality and safety of the material. During the recy-cling process, records of the PET bottle batch-es are kept. From collection to final product, the entire supply chain is transparent and traceable, which is achieved with digital tools for monitoring and documentation.



100% r-PET with 25% of used bottles collected in coastal areas (ocean bounded bottles)

Benefits

Circular story

Circularity currently enjoys a momentum in popularity, both by consumers and public actors. Circularity is one of the most promising weapons to battle environmental pollution, resource scarcity and high energy consumption. Circular products generally require fewer virgin materials, less energy and water to produce and help minimise waste. It is not just good for the environment, but also often an economical choice. On top of that, it creates a compelling story about the products. Telling the products' circular story is made simple by the verified marketing content created by the Partnership for Compliance, which will impress diverse stakeholders.

Reducing marine plastic waste

By collecting PET bottles from coastal are-as, it is prevented from entering natural wa-ters and effectively reducing the pressure of plastic pollution in oceans. Not only that, but the recycling process offers an economically sustainable and commercially attractive opportunity, which further incentivises stakeholders.

Collection

Globalturq Group provides the local network and expertise to make collection of significant amounts of usable plastic waste possible. Globalturq has been active in the collection and recy-cling of plastic waste. PET bottles are collect-ed from West Africa regions close to the coast Gana Lorries packed with bags of plastic bottles arrive at the collection centres, including in Gana.

At the collection centres, the materials are manually inspected. Non-plastic material, such as cans, are removed, as are non-recyclable material. Then, the remaining recyclable items are sorted by colour, mainly transparent and non-transparent. The sorted material in pressed into bundles and send to the recycling factory.

Process

Washing

After the material has arrived at the recycling facility, it is manually screened for any potential impurities or non-recyclable material. The workers are well trained in accurately screening the material. After it has been made sure the material is 100% recyclable plastic, sorted by colour, the bottles are washed and purified in large washing machines.

Shredding

The PET bottles are shredded into flakes, which is a multistep process. After the washing, the lables are separated automatically. Then, the bottles are crushed smaller and smaller, rinsed and dried, resulting in clean shredded PET flakes.

Shipping

Finally, the PET flakes packed in big bag packaging and shipping to customer port







Step 2: Pre-sorting at Collection Center



Raw materials









Storage of bundles



Step 5: Manual screening

Step 6: Bottle washing



Step 7: Shredding





Shredded PET flakes





PET Recycling

Raw Materials