

# COMING TOGETHER TO MAKE A MATERIAL DIFFERENCE

Sustainable Polyester Yarn solely from post - consumer PET bottles



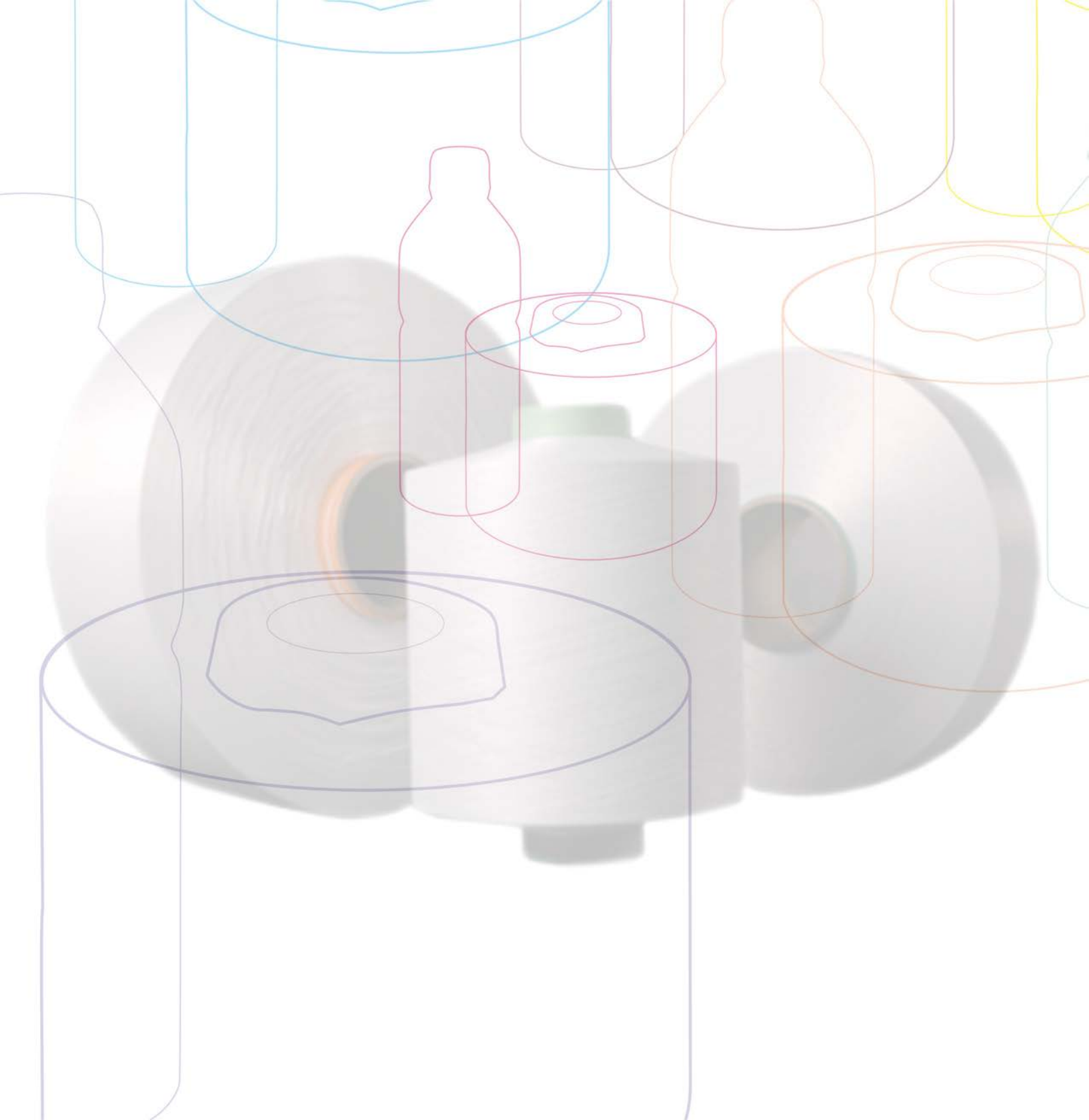
 **PERPETUAL**  
making a material difference

**POLYGENTA**  
A group company of perPETual Global Technologies Limited.

 **POLYGENTA**

Polygenta is the only manufacturer of perPETual yarns in India sub-continent- a high quality sustainable polyester filament yarn made from only 100% post-consumer PET bottles. Polygenta's fully integrated plant in Nashik, India has a production capacity of 10,000 tonnes per annum.





# PROPRIETARY PROCESS BACKING OUR VISION AND PROMISE

## The perPETual Process

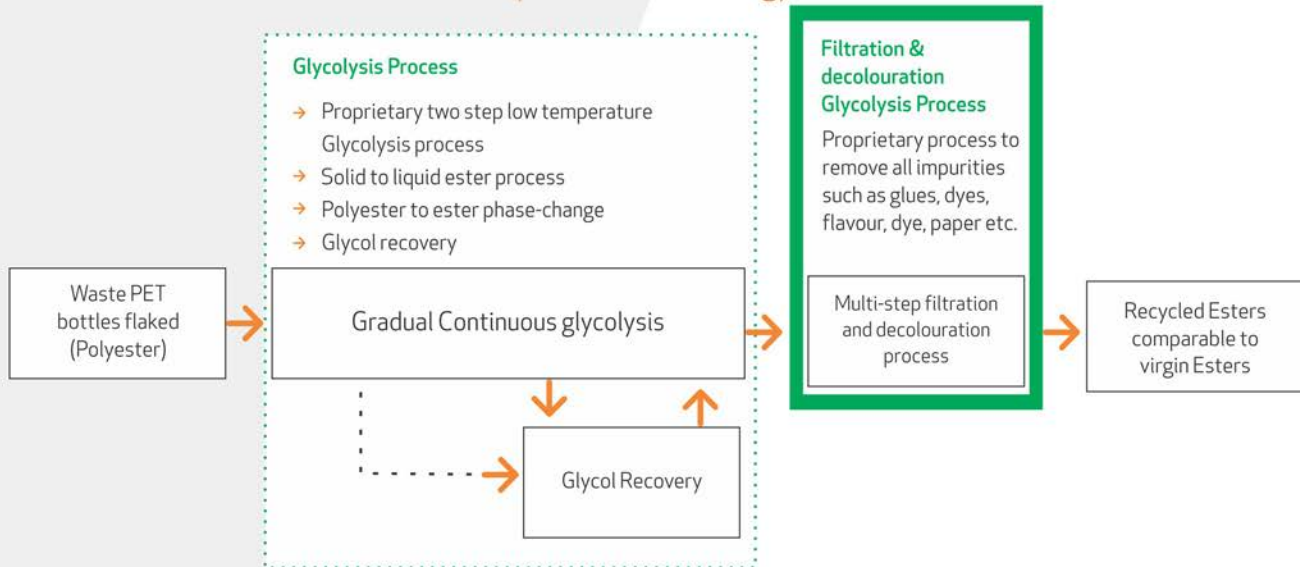
Our proprietary process is used to recycle post consumer PET bottles into polyester yarn. Unlike the conventional mechanical recycling processes, we employ a superior recycling process to convert post-consumer PET bottles to a purified recycled liquid ester. These esters are equivalent to the fundamental building blocks formed in typical polyester plants by reacting the conventional crude oil-derived feedstocks, PTA and MEG. This is the key reason that our yarn performance is comparable to conventional

polyester yarn made from high purity virgin petrochemicals.

Our decontamination technologies help us achieve higher purity levels, compared to mechanical reprocessing, and are capable of removal of pigments from coloured bottles as well.

Downstream from our proprietary process, our plant is configured like any other state-of-the-art conventional polyester filament yarn plant.

## The Patented perPETual technology





# COMMITTED TO A MORE SUSTAINABLE, CONNECTED SOCIETY...

Collectively, we all face countless decisions each year in choosing how to treat over 600 billion PET bottles after use. Today, less than half of these bottles are collected and re-processed, with the rest ending up in landfills or inefficient incinerators. Our patented environment friendly chemical re-processing of these bottles is inherently superior to conventional mechanical reprocessing for these post-consumer PET bottles.

Thus we are offering our supply chain partners – and ultimately all of us as consumers – a better choice for improving the environment and promoting a more sustainable planet.

## Reduced petrochemicals dependence:



Recycling 1 ton of PET waste saves 3.8 barrels of oil.

## Reduced landfills:



Recycling 1 ton of post-consumer PET bottles saves 5.6 cubic meters of landfills.

## Energy Conservation:



Our process consumes less energy than conventional polyester manufacturing.

## Reduced Carbon Footprint:



Comparable CO<sub>2</sub> emissions are notably lower in comparison to peer companies.

## Reduced Water Consumption:



Our process results in zero discharge of liquid effluents.



And we do not want to stop there. Other polyester products also require better end-of-life solutions (e.g. coloured beverage bottles, thermoforms, and even textiles). So we are working to see how our unique chemical process can be adapted to find better solutions for making these products more sustainable as well.

# OUR INNOVATION PLATFORM



The perPETual technology underpinning Polygenta's 100% post-consumer recycled polyester [filament] yarn allows for the manufacturing of high quality PET-based fabrics & garments.

## **Our Product range:**

- ✓ R-DTY in the range of 50-600 denier
- ✓ R-FDY-40 to 75 denier
- ✓ Spandex covered yarns
- ✓ R-POY in the range of 80-500 denier
- ✓ R-PET Chips





# ADVANTAGES OF BUYING SUSTAINABLE YARN FROM POLYGENTA



## Only manufacturer of "perPETual" yarns in India

perPETual yarns are the high quality sustainable filament yarns in the market and are recognised by our customers to always be of a guaranteed quality.

These yarns are made from only 100% post-consumer PET plastic bottles.

These yarns are used for a wide range of applications including:

- ✓ Sports Apparel
- ✓ Casual Fashion
- ✓ Outdoor Wear
- ✓ Polar Fleece
- ✓ Backpacks and soft luggage
- ✓ Home furnishings
- ✓ Automotive
- ✓ Denim

Our yarn's quality, appearance, physical properties, and processing performance are comparable to yarn made conventionally from crude-oil based petrochemicals.

Polygenta also supplies high performance textile grade chips and POY to supply chain partners for specialty products and applications.



## We are committed to innovation and sustainability:

Manufacturing quality products from post-consumer PET using perPETual's unique, patented recycling process is our sole business focus. This singular focus translates into process efficiencies that benefit both our stakeholders and our customers. We seek a triple bottom line - profits, planet and people – with our proprietary process as an innovation platform, recognising that truly sustainable businesses must strive for continuous improvement and cost efficiencies to remain competitive.



## A key supply chain partner for sustainable polyester:

As a producer of quality sustainable DTY, we are a key partner for leading apparel, footwear, home furnishing and outdoor brands around the world seeking to enhance the sustainability of their products, operations, and supply networks.



## Credentials:

- ✓ GRS ver 4.0
- ✓ Oekotex Std 100 (Class I)
- ✓ IMS - ISO 9001:2015, ISO 14001:2015, BS OHSAS 18001:2007.
- ✓ We were selected as the Sustainable Investment of the year by Financial Times and IFC.
- ✓ We were recently recognised at Davos World Economic Forum as one of the global leaders in the circular economies.





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