



Add value.
Inspire trust.

Recycled polyester

Testing for polyethylene terephthalate (PET) origin



Made from
Recycled Material



Your challenges

Recycled polyester is commonly known as rPET. It is obtained by melting down plastics (e.g. PET bottles) and converting it to polyester fibres. The production of recycled polyester uses less resources than new fibres and generates less carbon emissions.

Recycled Polyester has been increasingly used by many brands as an environmental marketing claim on their Apparel & Footwear articles. Importers and brands may want to create higher value-added articles with recycled materials so as to cater to the needs of environmentally conscious individuals.

However, such claims need to be true and verifiable. Brands and companies should make sure that they get the right fibre that they ordered and paid for.

Why is it important to accurately report the amount of recycled polyester used?

Marketers must ensure that all interpretations of their claims are truthful, not misleading, and supported by a reasonable basis.

A reasonable basis often requires competent and reliable scientific evidence. Such evidence consists of tests, analyses, research or studies that have been conducted and evaluated in an objective manner by qualified persons.

Otherwise, they are at risk of violating laws that protect consumers against false or deceptive marketing claims.



There are specific laws governing fair trade to protect consumer rights in countries such as:

- **Germany - Act against Unfair Competition**
It prohibits unfair commercial practices.
- **Europe - DIRECTIVE 2005/29/EC**
It regulates unfair business practices in the EU.
- **USA - Federal Trade Commission Act**
It prohibits deceptive acts and practices in/or affecting commerce.

How can companies ensure that the percentage range of recycled polyester used is accurate?

TÜV SÜD has developed a test method to identify “Recycled Polyester” fibre that is produced from recycled PET bottles.

The challenge is quantifying and determining the PET origin in polyester by analyzing Isophthalic Acid concentration using gas chromatography. Thereafter, using thermoanalytical techniques which further supports the differentiation of virgin polyester and recycled polyester.

Your business benefits

As an independent third-party, we want to embark on this journey to enable a smooth transition to a circular economy. Textile industry is on the move to more sustainable action by using circularity principles such as reduce waste and increase secondary material use. This service provides manufacturers and brands with the ability to technically and independently substantiate sustainability/circularity claims around the material recycled content of products.

- **Minimise time to market** – By using highly efficient testing methods to ensure that your apparel and footwear articles have the same quantity of “recycled polyester” as claimed and can be sold in your target markets.

- **Gain a competitive advantage** – The majority of consumers want the industry to minimise the use of plastic packaging such as PET bottles or if possible to manufacture with recycled materials.
- **Enhance quality of product** – by working with an internationally renowned testing house to ensure products are tested according to international standards and sustainability claims are accurate and true.

Why choose TÜV SÜD?

As TÜV SÜD is an internationally accredited testing and certification body, you can be assured that we conduct our testing with the highest degree of professionalism and conformance to international guidelines and standards. Our international network enables us to offer certification and auditor engagement services on every continent, certifying organisations’ compliance on a global scale.

Add value. Inspire trust.

TÜV SÜD is a trusted partner of choice for safety, security and sustainability solutions. It specialises in testing, certification, auditing and advisory services. Through more than 25,000 employees across over 1,000 locations, it adds value to its customers, inspiring trust in a physical and digital world.

Related services

TÜV SÜD provides the following related services:

- Chemical safety of raw materials and products (based on RoHS, POP, REACH regulations)
- Chemical safety of process chemicals according to ZDHC (Zero Discharge of Hazardous Chemicals) MRSL
- Chemical safety of wastewater and sludge according to ZDHC guidelines
- Biological testing services: Biocompatibility, Ecotoxicity, microbiological testing
- Packaging biodegradability testing and certification
- Recycled content verification and certification
- Higg Facility Social & Labor Module (Higg FSLM) verification
- Higg Facility Env. Module (FEM) verification
- Corporate social responsibility (CSR) audits: SA 8000, BSCI, WRAP, SEDEX(ETI), RBA
- Reliability and Performance testing: weather resistance, color fastness, shoe flexing, Sole abrasion, and more