



# TESTEX MICROPLASTIC

TESTEX®  
MICROPLASTIC

- ✓ Independent testing by Swiss textile testing institute
- ✓ Testing in accordance with ISO 4484-2:2023
- ✓ Internal research & development (R&D) based on the latest scientific findings

Legal regulations are becoming more and more stringent in order to reduce the environmental impact of microplastics. TESTEX offers an independent testing procedure for the detection of microplastic residues in textiles.

Using state-of-the-art testing equipment, TESTEX carries out diverse and comprehensive tests on fibres, yarns, twisted yarns, woven fabrics, knitted fabrics, nonwovens and finished products. Microplastics testing is carried out in accordance with ISO 4484-1:2023 and ISO 4484-2:2023. The method is constantly being further developed with our internal R&D team and leading equipment manufacturers. Based on the latest knowledge, it supports the measures of the European Commission\* to reduce microplastic pollution.

### Definition and sources of microplastics

Microplastics are plastic particles (solid polymers) that are larger than one nanometre and smaller than 5 millimetres in three dimensions. This excludes particles made from natural fibres (e.g. cotton, hemp, etc.) and man-made fibres from natural raw materials (viscose, modal, lyocell, etc.).

- **Primary microplastics:** Plastics produced directly in microscopically small sizes, e.g. in cosmetics (microbeads), produced by industrial processes or in the manufacturing of certain products such as textiles.
- **Secondary microplastics:** Formed when larger plastics are broken down, either by UV radiation, which makes the plastic brittle and fragile, or by direct mechanical wear, such as the washing of synthetic fibres.

### Our microplastics testing services

TESTEX uses a Laser Direct Infrared (LDIR) Imaging System with the latest generation of quantum cascade lasers (QCL) to analyse the release of particles. This measurement technology allows the determination of:

- Number of particles
- Morphology (shape and appearance)
- Distribution and dimensions
- Type of polymers with an accuracy of at least 75%.

# FACTSHEET - TESTEX MICROPLASTIC



For the analysis, the textile samples are washed and the wash water is collected and filtered. The fibres and particles washed out of the textile sample or the waste / production water from the textile manufacturing process are directly analysed on the filter using LDIR, and then evaluated.

## Benefits for the customer

- Understanding and reducing environmental emissions from microplastics in their own products
- Information on the quantity and form of fibres and particles released
- Information about the type of fibres and particles released
- New purchasing incentives for informed, sustainably orientated customers

## Requirements for test samples & test duration

- Textile samples: at least 1 m<sup>2</sup> textile / test sample, packed individually
- Waste water: 1.5 litre water in three securely lockable, leak-proof glass bottles
- Test duration: approx. 10-15 working days from receipt of the test samples

## Prices

- |  |           |
|--|-----------|
| • Evaluation of microplastic particles in grams or number per total weight | CHF 420   |
| • Determination of the polymer type of the particles                       | + CHF 250 |
| • Statistical evaluation of the size distribution and type of particles    | + CHF 200 |

To qualify for and promote the TESTEX MICROPLASTIC Label, all three tests must be completed.

\*Measures taken by the European Commission:

[https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_4984](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_4984)

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