What you need to know about microplastics from textiles

Towards a circular economy - mitigating the effects of microplastics in the environment

Major challenges of the textile industry

40% increase
in EU textile consumption in just a few decades[1]

Textile industry have overtaken both air and maritime shipping in terms of Greenhouse Gas (GHG) emissions[2]

165 of the 1900+
Chemicals used in production are classified as hazardous by the EU[3]

Only 1%
of second-hand textiles are recycled into new clothes[4]

What are microplastics?

- In textiles, microplastics are the synthetic fibre measuring less than 5 millimetres in length
- Most common debris type in bodies of water
- Able to pass through water filtration systems
- Major threat to aquatic ecosystems and marine organisms

Microplastics from clothing[5]

Washing of synthetic textiles is one of the MAIN SOURCES of microplastic pollution

35%
of synthetic fibre in the ocean come from textiles

124 to 308 mg/kg
of synthetic fibre are released during washing

40,000 tonnes
of synthetic fibers discharged by washing machines annually[6]

What does it affect?[7]

Microtextiles contribute to microplastic pollution, as much of today's clothing are made from plastic-based materials (e.g., polyester, nylon, acrylic). Microfibres, which shed from synthetic clothes when washed, are the most prevalent microplastic in the environment, affecting interconnected ecosystems.

52% Sea turtles

90% Sea birds

100% Coral reefs

96% of all biodiversity

How microplastics testing can help

(A) Determine the amount of microplastics shed from textile products and materials during the washing process

(B) Better understand the impact of your products on the environment

(C) Stay ahead of legislation by identifying the amount of microfibres released by different textile fabrics and fibres into our waterways

(D) Proactively reduce microplastic pollution through informed raw material selection. Therefore ensuring your sustainability claims are true

TÜV SÜD microplastics testing services

AATCC TM212-2021:

Test method for fibre fragment release during home laundering

ISO 4484-1:2023:

Textiles and textile products — Microplastics from textile sources — Part 1: Determination of material loss from fabrics during washing

Why choose TÜV SÜD?

- Developed innovative microplastics testing methods to evaluate the microfibre-shedding potential of commercially available synthetic textiles
- Renowned track record in quality assurance and considerable knowledge in textile product testing will help you achieve better product quality
- Softlines laboratories are fully equipped to conduct microplastics and textile fibre fragments testing services

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Inspire trust.

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www.tuvsud.com/cps

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