Microplastic pollution
The new runway trend for season 2023-2050

Microplastics are tiny synthetic plastic particles. Smaller than 5 mm

Microplastics are in the clothes we wear.
Polyester, acrylics, nylon, polypropylene: these are all examples of synthetic fibres or plastic materials very commonly used in clothing.

200,000-500,000 tonnes of microplastics from textiles enter the global marine environment each year.
Making up 70% of the fibre market

Fast fashion leading the microplastic pollution trend

Synthetic textiles are one of the major sources of microplastic pollution — they have dominated the fibre market in fashion since the mid-1990s.

The wearing and washing of synthetic textiles are a significant source of microplastics released into the environment.

- Microplastics are not retained by washing machines: they are discharged with the washing machine effluent instead. Washing synthetics releases an estimated half a million tonnes of microplastics into the oceans every year - 35% of all primary microplastics released into the environment.

- Microplastic fibres are shed from synthetic textiles primarily during washing, and throughout the entire textile lifecycle - from manufacturing (including yarn spinning, weaving, knitting, brushing, and cutting), to washing, use, waste treatment, and end of life.

- The first washing cycle is when most microplastics are released: a single laundry load of polyester clothes can discharge 700,000 microplastic fibres that could ultimately end up in the food chain.

Some textiles release more microplastics than others:

- For instance, one cosy warm polyester fleece releases up to 250,000 microplastic particles.

- Scissor-cut textiles produce a higher microplastic count than laser-cut ones.

Microplastics can contain and absorb high concentrations of hazardous chemicals.

"Plastic pollution" immediately brings to mind countless plastic bottles littering our beaches. However, there is much more to it, and fast fashion greatly contributes to this notorious picture.

The more clothes are produced, the more we buy, the more we wash, the more polluting substances enter the environment.

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In an ideal world...

The textile sector operates within planetary boundaries, is climate-neutral, and is part of the circular economy where products are designed to be more durable, reusable, repairable, toxic free, recyclable and energy-efficient.

In an ideal world, policymakers prioritise the prevention of microplastic pollution at the source, and minimise its impacts on our global ecosystems and climate. Binding, effective, and sustainable solutions are being implemented all over the world.

We all need clothes. The quantities and the way we produce and use them, however, need to change – urgently.

The textile industry must move away from the “buy–use–throw away” pattern and adopt a real circular model. Microplastic pollution needs be addressed by reducing production volumes and the use of plastic, as well as promoting reuse, and setting EU-wide binding Material Footprint Reduction Targets - with specific objectives for textile products.

The European Strategy for Plastics identified microplastics as one of the key challenges, and two years later, the EU Circular Economy Action Plan pointed to the textiles value chain as a priority. Consequently, a new initiative is now upcoming, titled "Microplastics pollution – measures to reduce impacts on the environment”.

How to tackle microplastic pollution from the textile sector?

Set limits on microplastic release at all lifecycle stages.

Ensure that products are less prone to microplastics through design, choice of yarns, and the way of spinning and weaving, as well as manufacturing processes.

Set a legally binding maximum threshold for microplastic shedding and implement manufacturing techniques that ensure the best-performing fabrics and methods.

Identify the materials and garments that release higher quantities of microplastics all along their life cycle, and phase them out at the design and production stages.

Set criteria to select less microplastic shedding fabrics and low-impact manufacturing techniques.

Include additional information on microplastics within the Product Environmental Footprint methodology.

Include mandatory microplastic warning labels to inform consumers, similar to the single-use plastics marking requirements.

Explore the potential of industrial pre-washing.

Set up Extended Producer Responsibility systems for textile products, covering microplastics.

Mandate the use of filters to capture microplastics released throughout the manufacturing process.

Ensure that washing and drying appliances for domestic and industrial use are equipped with filters.

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All these measures are needed but will not be enough unless we substantially reduce the production and consumption of textiles!