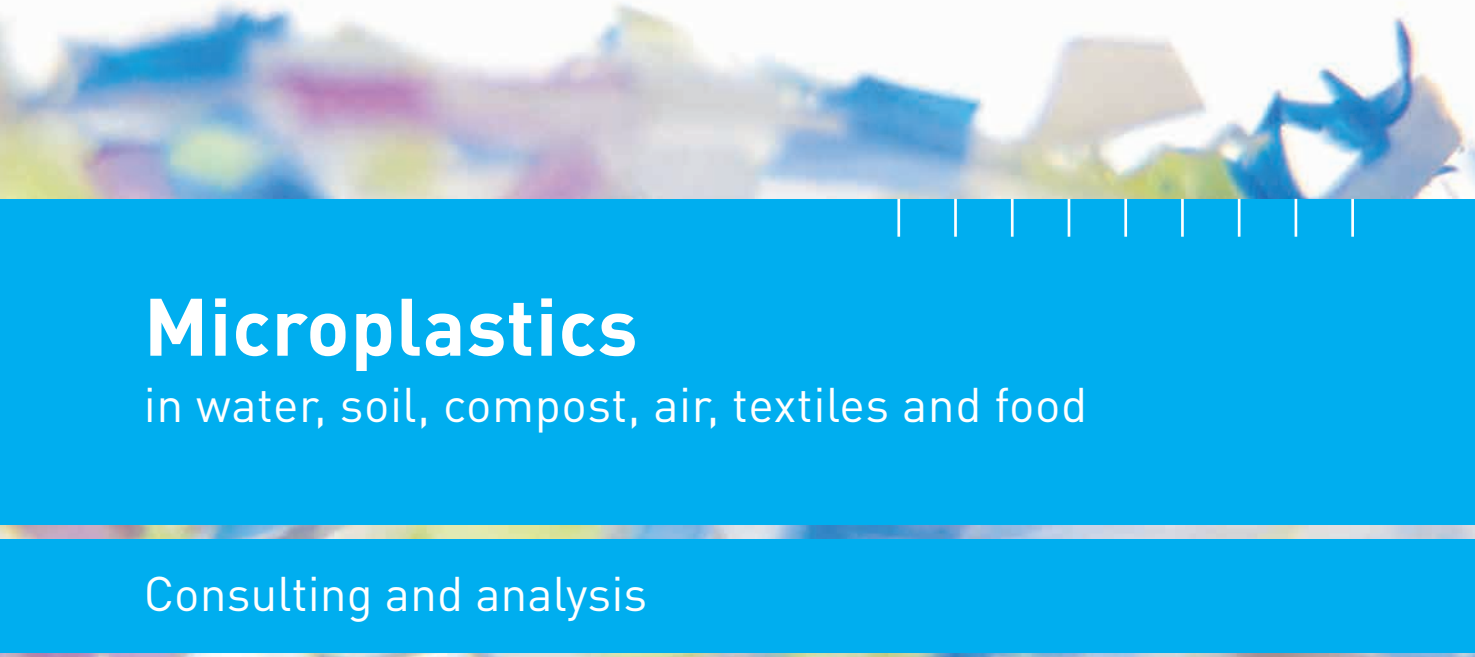
WESSLING
Quality of Life



Microplastics

in water, soil, compost, air, textiles and food

Consulting and analysis

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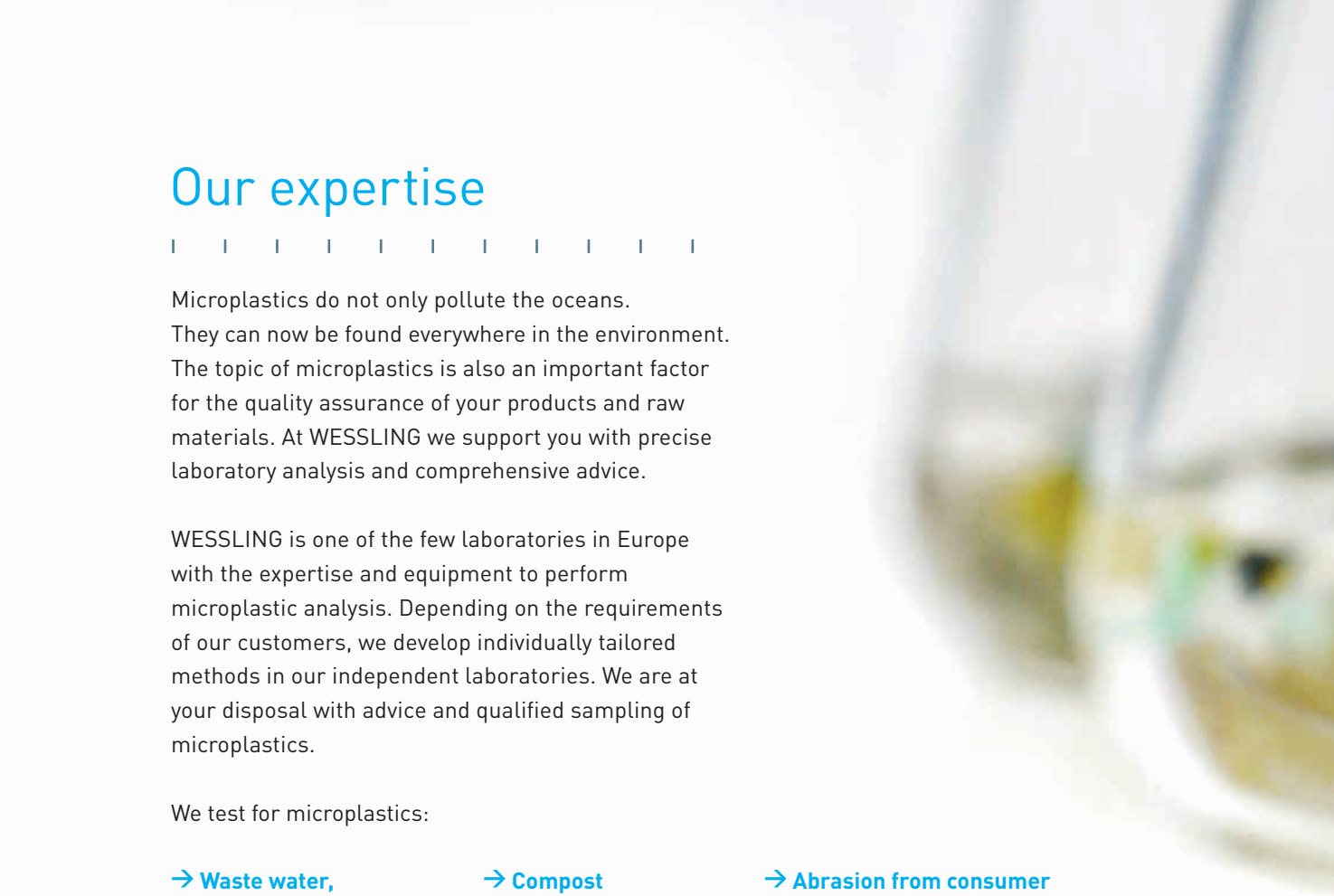
Our expertise



Microplastics do not only pollute the oceans.
They can now be found everywhere in the environment.
The topic of microplastics is also an important factor for the quality assurance of your products and raw materials. At WESSLING we support you with precise laboratory analysis and comprehensive advice.

WESSLING is one of the few laboratories in Europe with the expertise and equipment to perform microplastic analysis. Depending on the requirements of our customers, we develop individually tailored methods in our independent laboratories. We are at your disposal with advice and qualified sampling of microplastics.

We test for microplastics:

- → **Waste water, process water and surface water**
- → **Soil and sediments**
- → **Compost**
- → **(Indoor) air**
- → **Cosmetic products**
- → **Textiles**
- → **Abrasion from consumer goods**
- → **Food and beverages**
- → **Tyre abrasion**

In addition, our team of experts, together with partners from the industrial and scientific sectors, are engaged in various research projects.

Microplastics in the environment

There are various reasons why microplastics are found in the environment. These include carelessly disposed waste and tyre abrasion, release in waste disposal (compost, shredding of building rubble, landfills, etc.), drifting of artificial turf pitches, abrasion of paints and varnishes and plastic components in the production process.

Small plastic parts cannot be completely filtered out of waste water and process water.

Municipal authorities, industrial companies and sewage plant operators rely on our experience in consulting and analysis for quality control.

Furthermore, light plastic particles are transmitted in the air and can therefore be inhaled.

Benefit from our expertise

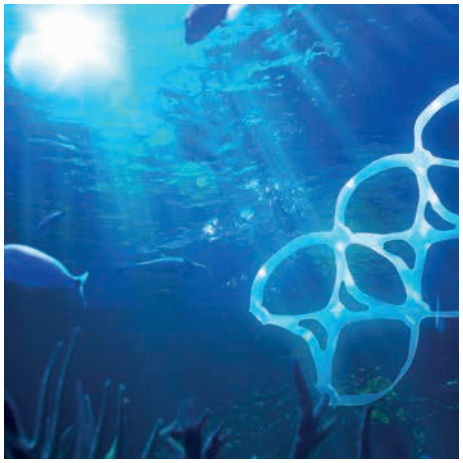
Food, consumer goods and cosmetic products

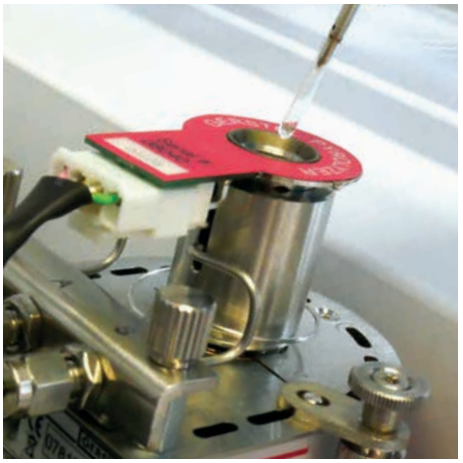
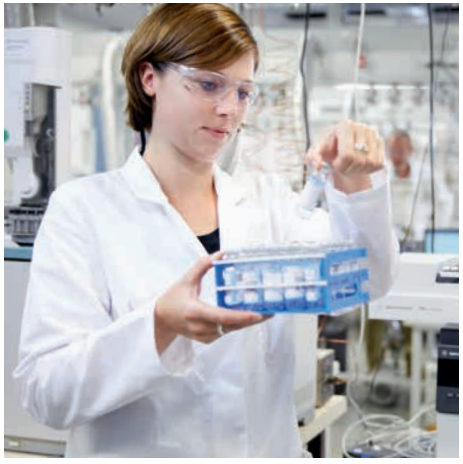
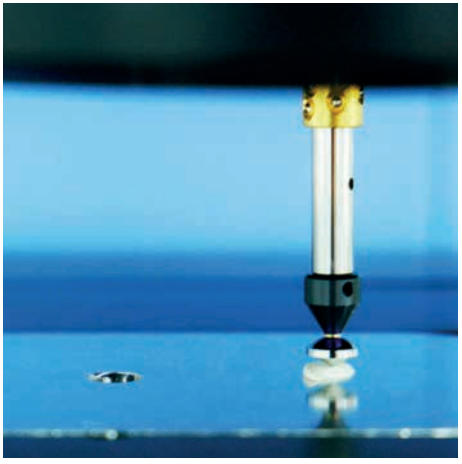
We support cosmetics and food producers, distributors and retailers in testing their products for microplastics in accordance with high quality standards. Particles between one micrometer and five millimetres in size can only be detected using sensitive methods. We analyse your samples with accredited methods and support you with our experience in the industry.

Discharge of plastic fibres from textiles

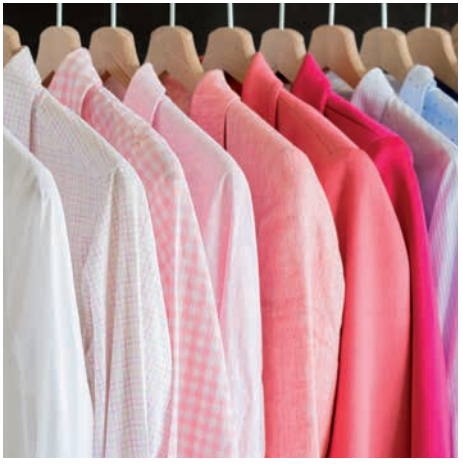
Sustainability is an important issue for the textile industry. One aspect is the discharge of plastic fibres during textile washing. Tiny fibres are discharged into the environment with the waste water because they cannot yet be completely retained during the water purification process. Our microplastics experts support you in identifying and utilising potential improvement. In our modern laboratories, we analyse the quantity and type of synthetic fibres that dissolve during each wash cycle. These analysis results form an important component in the quality management of your products.


Sampling
Sampling preparation
Question
Consulting
Testing objective
Detection
Evaluation
Analysis







Our services

- Measuring concepts
- Complete analysis from sampling, sample preparation to detection
- Analysis of microplastics: spectroscopically by FT-IR microscopy and Raman microscopy and thermo-analytically by pyrolysis-GC/MS
- Project-related development of specific analysis methods for different matrices
- Cause analysis: identifying potential entry sources
- Research and development

Your benefits

- Quality assurance of your products and raw materials
- Certainty as to whether microplastics are present or not
- Identifying microplastic entry paths and taking action
- High-level expertise through participation in research and development projects and various expert committees
- State-of-the-art laboratories
- Analysis of different sample types from a single source

Our interdisciplinary research

How do microparticles from tyres enter the environment?

In the joint research project "Tyre Abrasion in the Environment" (Reifenabrieb in der Umwelt – RAU) we contribute our expertise to the development, implementation and evaluation of chemical and physical analysis concepts for microplastics. The aim is to gain new insights into the extent of tyre abrasion on roads. The project is part of the research project "Plastics in the Environment" of the Federal Ministry of Education and Research in Germany.

How do micoplastics effect mankind and the environment?

With the research project "MikroPlastiCarrier", funded by the European Regional Development Fund (ERDF), WESSLING is investigating the impact of microplastics on humans and the environment. The project partners are working together to develop faster and simpler analytical methods for these tiny particles. We support the project with our expertise in sample collection, processing and detection. In addition, we investigate the hazards posed to living organisms by microplastics and pollutants on their surface.

MIKRO PLASTI CARRIER

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EUROPÄISCHE UNION
Investition in unsere Zukunft
Europäischer Fonds
für regionale Entwicklung

EFRE.NRW
Investitionen in Wachstum
und Beschäftigung

RAU
REIFENABRIEB IN DER UMWELT

SPONSORED BY THE

Federal Ministry
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and Research

FONA
Research for Sustainable Development
BMBF

WESSLING
Quality of Life

WESSLING is an international and independent laboratory, testing and consulting company represented at 26 locations in Europe and China. The family-owned company enjoys an excellent reputation among national and international customers since 1983. 1,600 employees work with great expertise on the continuous improvement of quality and safety, and of environmental and health protection. We examine, analyse and assess, we plan and implement projects – for the sustainable improvement of the quality of life.

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The topic microplastics at WESSLING – read more: