



**ANALYTICS FOR THE
BEVERAGE INDUSTRY**

Microparticles and microplastics

**INSTITUT
FRESENIUS**

SGS

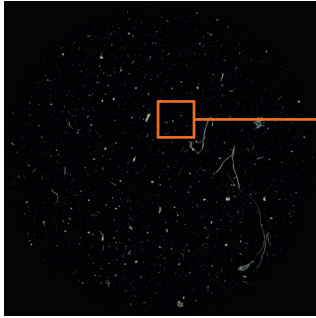
ANALYTICS FOR THE BEVERAGE INDUSTRY

Many scientific studies have detected microparticles and microplastics in bottled water. There are significant differences between the products, and from bottle to bottle. In order to reduce the number of particles, reliable knowledge of where and when which particles entered the beverage containers is indispensable.

SGS has been working on method development for years, so we have the appropriate processes in place for testing any particle size. With us, not only can you gain a knowledge advantage over regulators and product testers, but you can also where you stand in the best-of-class ranking.

WHAT IS INVESTIGATED?

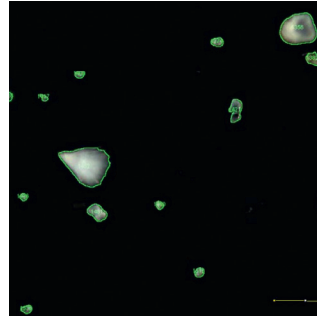
- Mineral water, table water
- Spring water, process water
- Food contact materials
- Soft drinks, beer in development



Overview of a sample filter with trapped particles

WHAT METHODS?

- Light microscopy
- Raman spectroscopy
- FTIR spectroscopy
- SEM-EDX



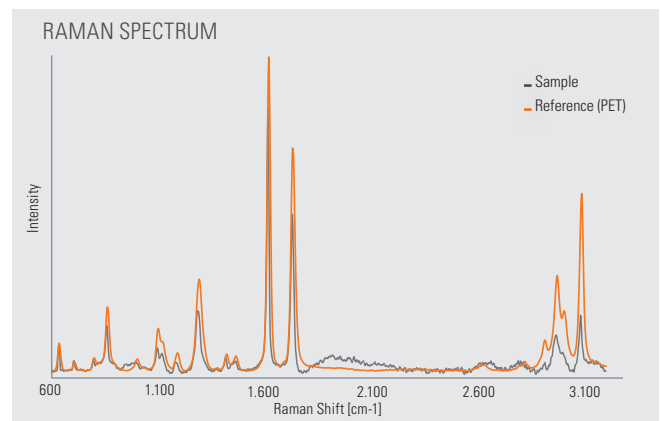
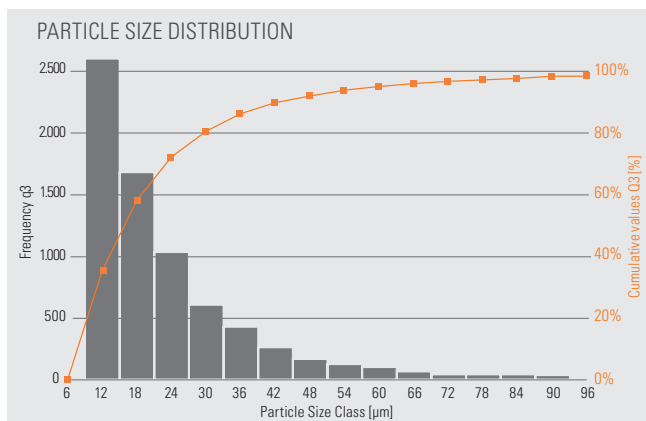
Detail of the filter with the particles to be analyzed

WHAT RESULTS DO YOU GET?

- Total particle number per liter
- Particle size distribution
- Morphologic description
- Number of microplastics per liter
- Polymer type of microplastics

YOUR BENEFITS

- The results of our investigation will support your corporate communication strategy and provide valuable guidance for improvements in the production process and supply chain.



OUR EXPERTISE

SGS Fresenius is able to analyze particles in the size range of 5 to 20 microns – this is of particular interest because 80% of the microplastics in water samples are found in this range. All work is carried out in particle-free laboratory areas (laminar flow box) and carefully monitored with blank values. Very low blank values are a prerequisite for reliable analysis and can only be achieved with considerable effort.

We are closely linked with and actively involved in national and international working groups on the harmonization of methods, including NMWE, DIN, and German government working parties.

Last but not least, our interpretation of the results is supported by the vast experience we have gained from working on a wide range of customer projects.

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WHEN YOU NEED TO BE SURE

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