



Testing of Nanotechnology for Textiles

Objective:

This test assesses whether the functionality of a textile is based on nanotechnology, is suitable for use, and if it poses possible biological risks.

The test is suited for:

- All textile materials (e.g. everyday textiles, outdoor textiles, personal protective clothing/workwear, accessories, home textiles, etc.).

Description:

Testing of nanotechnology includes:

- determination of the type of nanotechnological finishing
- visual inspection of nanotechnological finishing using a scanning electron microscope
- quantification of the effect of the finishing (e.g. dirt repellence by measurements of contact angle on characteristic fluids, antimicrobial effects of Nano-Ag, UV protection of Nano-Ti/Nano-ZnO)
- determination of mechanical suitability for use
- laundering permanence
- determination of breathability and
- determination of biocompatibility

The testing program is tailored to the textile material and its areas of application. Testing is carried out on new textiles and after simulated conditions of use.

Your advantages as a client:

- Objective testing of nanotechnology (Is the finishing really based on nanotechnology?)
- Product optimization during development
- Consumer safety
- Permanence of functional "nano"-characteristics during use

Labels and certificates:

Hohenstein Quality Label "Nanotechnology"

Requirements for test samples:

General information:

- The testing program is designed to fit the textile and its life and use cycle.
- Tests are carried out on new samples and after simulated use (reprocessing cycles, typical wear and tear).

Amount of material:

- about 0.5 – 1 m²
- dimensions will be specified after a testing program has been set

Duration of testing:

- 10 working days after receipt of order and samples
- Including biological safety testing (biocompatibility) 4-5 weeks

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