



## 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 m<sup>2</sup>
- dimensions will be specified after a testing program has been set

#### Duration of testing:

- 10 work ing days following receipt of test sample
- Including biological safety testing (biocompatibility) 4-5 weeks

INNOVATEX Textile  
Engineering and Testing  
Institute Co.  
1103 Budapest,  
Gyömrői út 86.

Contact: Ágnes KOVÁCS  
T: + 36 1 260 1809/115  
Mobil: + 36 20 9828672  
Fax: + 36 1 261 5260  
[a.kovacs@innovatext.hu](mailto:a.kovacs@innovatext.hu)  
[www.innovatext.hu](http://www.innovatext.hu)