



## Safety test for antibacterial textiles using human skin flora in a wearing simulation

### Background:

Healthy human skin is densely populated with microorganisms, which contribute to the barrier function of the skin as natural skin components. In case of an excessive effect of antibacterial textiles, critics see a possible negative influence on the healthy human skin flora.

### Objective:

Assessment of the application security of antibacterial textiles towards a standardized human skin flora.

### This test is particularly suitable for:

- Clothing with antibacterial efficacy (e.g. silver)
- First layer clothing
- Sportswear, underwear, wellness and functional textiles
- Clothing for sensitive persons such as allergy-sufferers, pregnant women, infants, invalids or the elderly

### Description:

The practice-oriented examination is based on a standardized model of a human skin flora, in which germ colonization, topography and milieu properties of a healthy skin are simulated. Therefore the model uses germ types of the body-own microflora of a human epidermis. The effect of the samples against these germs is analyzed quantitatively on the artificial skin/skin flora over a contact period of 18 hours and assessed against internal controls or an identical material without antimicrobial activity. If no significant germ reduction appears within this wearing/exposure period, the textile is regarded as "safe" with respect to effects towards the human skin flora.

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### Customer benefit:

- Product optimization
- Consumer safety
- Advertising impact
- Minimization of complaints

### Label and Certificates:

On passing the test, the product may be awarded the Quality Label "Skin flora neutral". Prerequisite for awarding of the label is an existing of a supplementary examination on antimicrobial activity according to DIN EN ISO 20743.

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## **Test sample requirements:**

### **General:**

- Test samples can cover an entire group of articles. Please contact us for further informations.
- Please indicate adequate names and specific denotations of the sample (composition of material, article number, washing cycles etc.)

### **Quantity of material:**

- At least 20 cm x 30 cm

### **Duration of the test:**

- Generally two weeks; the date will be confirmed once the test sample has been received