

## Measurement of Water Vapour Resistance

### Objective:

The water vapour resistance ("breathability") is measured by the Skin Model. It is possible to test not only textiles (e.g. woven or knitted fabrics) in the proper meaning of the word but also nonwovens, foams and combinations of these materials.

### The test is particularly well-suited for:

All textiles that come into direct contact with the body, e.g.

- Coated and/or laminated textiles for outdoor clothing
- Knitted products for functional and daily underwear, sweaters, workwear and protective clothing
- Fabrics for outerwear, bed linen
- Mattresses
- Car seats

### Description:

The measurements are carried out using the thermoregulatory model of human skin (Skin Model) according to ISO 11 092. With this test the material specific water vapour resistance of the sample is measured. Fundamental research has shown that water vapour resistance ("breathability") of various materials can be evaluated in absolute and comparative terms. Furthermore it can be classified according to several standards for personal protective clothing

### Your advantages as a client:

- Objective measurement and quantification of "breathability"
- classification according to standards for PPE
- Product optimization during development
- Consumer safety

### Labels and certificates:

If the item meets the requirements, Hohenstein's "Tested Quality" label for "breathability" can be used.

### Requirements for test samples:

#### General:

- The measurement is performed according to the requirements of the customer in new condition of after washing/cleaning.

#### Amount of material:

- About 1 m<sup>2</sup> material, minimum width 35 cm

#### Duration of testing:

- Dependent on the amount and nature of the material (10 working days as a rule following receipt of test sample)



**HOHENSTEIN INSTITUTE**  
Schloss Hohenstein  
74357 Boennigheim

#### Contact

Function and Care  
Silke Off  
Telephone: +49 7143 271 632  
Fax: +49 7143 271 94632  
E-Mail: s.off@hohenstein.de

www.hohenstein.de