



Measurement of Wear Comfort

Objective:

Physiological wear comfort of clothing is determined by its thermophysiological and skin sensorial properties. With the Skin Model thermophysiological properties (heat and moisture management) can be measured. Skin sensorial properties affect how a textile is perceived on the skin. These properties can absolutely and comparatively be assessed by apparatus measurements.

The tests are particularly well-suited for:

- Knitted products for functional and daily underwear, sweaters, workwear and protective clothing, T-shirts
- Fabrics for workwear, protective clothing and outer garments
- Stockings and socks

Description:

The measurements are performed with fabric layers. On the one hand the thermoregulatory model of human skin (Skin Model, according EN 31 092 and/or ISO 11 092) is used to assess processes of heat and moisture management of the textile. According to wear situations defined by Gagge (1937) and Umbach (1993) different kinds of perspiration is simulated and appropriated values are measured. On the other hand skin sensorial properties are quantified. This includes e.g. whether a textile will be perceived as clammy or will scratch on the skin.

With the values describing thermophysiological and skin sensorial properties of a textile it is possible to calculate a wear comfort vote. According to the intended use of the textile the values and their weight is adjusted. That's why formulas are different for sports clothing and casual wear.

Your advantage as a client:

- Objective measurement and quantification of wear comfort
- Product optimization during development
- Consumer safety through testing carried out by an impartial institute

Labels and certificates:

For knitted products and materials for garments, bed linens and socks the Hohenstein Quality Label "Wear Comfort Vote" can be used.

Requirements for test samples

General:

- Measurements are carried out after at least one laundering/cleaning cycle

Amount of material:

- About 1 m² sheet material, minimum width 35 cm

Duration of testing:

- Dependent on the amount and nature of the material (15 working days as a rule following receipt of test sample)

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