HOHENSTEIN

Textile UV-protection (UV STANDARD 801)

Objective

This test method is used to evaluate the UV protection factor (Ultraviolet Protection Factor = UPF) of a textile which protects human skin from damaging UV rays. UV protective textiles are tested in the new condition as well as after a simulated use and stress test condition.

The test is particularly well-suited for

- Textiles for swimming and/or beachwear, particularly for babies and children
- Textiles used for sportswear, sporting equipment and leisure clothing
- Clothing for people who work in environments where they are exposed to UV radiation
- Shading textiles (e. g. parasols, awnings and sunshades)
- Other materials for sun protection (e. g. protective films for windows)

Advantages for you as the customer

- Consumer safety by UPF determination under use condition
- Material optimization during development
- Securing the product on the market
- Clear product information

Description

Determination of UPF according to UV STANDARD 801 is based on the solar spectrum of the Australian/New Zealand standard. Samples are tested under different use conditions depending on the field of application in which the textile is to be used.

Garments are tested new and also after they have been subjected to the demands placed on them during use (stretching, wetting, abrading and washing).
In addition to being tested new, sun protection textiles are subjected to the demands placed on them during use (stretching, wetting, weathering).

The determined UPF is used as a multiplier for the duration of time an individual's skin can protect itself from UV exposure, and indicates how long the textile allows the user to stay in the sun without incurring skin damage. According to UV STANDARD 801, the following levels of UV protection (UPF) can be achieved: 10, 15, 20, 30, 40, 60, 80.

Important information:
The tested material may only be used and advertised in tailor made clothing when the essential requirements of sun protective objective are fulfilled concerning typically exposed body locations. This is in the responsibility of the client and is not subject of the material certification.

Requirements for test samples

General information:
The customer specifies whether tests are to be carried out for certification or not. Pre-treatments are part of the test program.

Amount of material:
1 m^2 each material and colour, representative

Duration of testing:
10 working days after receipt of order and samples

Labels and certificates

A UV STANDARD 801 certificate can be applied for. This is a precondition for promotion and material labelling. It is valid for 1 year.

Important information:
We would like to point out that UV protection clothing is classified as personal protective clothing according to Regulation (EU) 2016/425 on Personal Protective Equipment. Therefore, CE marking is necessary. In addition to the evidence of UV protection, the ready-made clothes must meet further special requirements. The compliance of these special requirements is not subject of the present material testing according to UV STANDARD 801.

HOHENSTEIN

Textiles & UV Protection (Australian/New Zealand, European and American Standard)

Objective

These standards are used to test the UV protection factor (Ultraviolet Protection Factor = UPF), of textiles and similar materials (e. g. protective films) in the new condition without the occurring strain in real usage.

The test is suited for

- Textiles used for garments
- Other materials

Advantages for you as the customer

- Consumer information by UPF indication in new state
- Material optimization during development
- Securing the product on the market
- Clear product information

Description

Testing UV protection factor (UPF) of textiles is done according to the Australian/New Zealand Standard (AS/NZS 4399), European Norm (DIN EN 13758-1) or the American Standard (AATCC TM 183). UPF allows an evaluation of UV protection provided by textiles with respect to the spectral composition of sunlight and human skin sensitivities.

For the Australian/New Zealand Standard (AS/NZS 4399) the solar spectrum of Melbourne, Australia is simulated. The European standard (DIN EN 13758-1) and the American standard (AATCC TM 183) apply the solar spectrum of Albuquerque, USA, where the solar radiation is similar to that of Southern Europe.

The standards listed here describe UV protective properties of textiles when they are new and have not been subjected to use or wearing. Depending on the level of UPF detected, grades of "Minimum" (UPF 15), "Good" (UPF 30) or "Excellent" (UPF 50, 50+) are classified.

Important information:
The tested material acc. to AS/NZS 4399 may only be used and labelled in ready-made clothes, if the requirements of the standard AS/NZS 4399 regarding design and labelling will be fulfilled by the manufacturer. The verification of compliance is not subject of the testing and certification order.

Requirements for test samples

General information:
The customer specifies whether tests are to be carried out for certification or not. Samples are tested just new.

Amount of material:
50 cm x 50 cm each material and colour, representative

Duration of testing:
10 working days after receipt of order and samples

Labels and certificates

A Hohenstein Quality Label "UV Protection“ can be applied for in case of testing according to AS/NZS 4399 and DIN EN 13758-1. The conclusion of a separate contract is precondition for this.

Important information:
We would like to point out that UV protection clothing is classified as personal protective clothing according to Regulation (EU) 2016/425 on Personal Protective Equipment. Therefore, CE marking is necessary. In addition to the evidence of UV protection, the ready-made clothes must meet further special requirements. The compliance of these special requirements is not subject of the present material testing and the Hohenstein Quality Label „UV-Protection”.