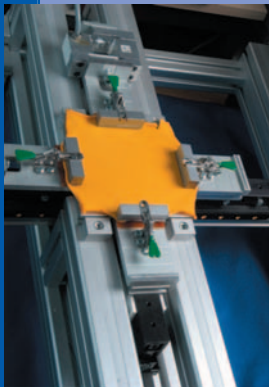




**HOHENSTEIN
INSTITUTES**

UV-STANDARD 801

+ **BRIEF OVERVIEW
OF THE TEST PROGRAM**



UV STANDARD 801
Test-No. 0000 FI Hohenstein

Secretariat of the International Test Association
for Applied Protection against UV Radiation
c/o Forschungsinstitut Hohenstein



The institutes of the International Test Association for Applied Protection against UV Radiation have set themselves the aim of determining the UV protection factor of a consumer product in such a way that the stresses and strains on the material which arise during use are taken into consideration. With this objective, the UV Standard 801 goes well beyond the requirements of the Australasian Standard AS/NZS 4399:1996 and remedies the fundamental weaknesses inherent in this standard, which merely takes into consideration the state of the textile as new, in a stress-free, dry state when determining the UV protection factor.

The procedure for determining the UV protection factor for the award of the licence to label products with the UV Standard 801 is described below.

1. Article groups / Test program and scope of tests

Samples submitted for certification to an institute of the International Test Association for Applied Protection against UV Radiation by the applicant are allocated an article group in line with the table below. This determines the scope of the test program, which can be seen from the table.

| | Stresses | | | Measurement of the UV protection factor | | | | | Scope of Tests (no. of) |
|----|----------|-----------------------------|------------|---|----------------|---------------|--------------------|-----------------|----------------------------|
| | Abrasion | Washing and/or dry cleaning | Weathering | New fabric | after abrasion | after washing | after dry cleaning | after weatering | |
| 1* | + | + | - | + | + | + | + | - | 3 or 4 |
| 2* | - | - | + | + | - | - | - | + | 2 |

Article groups:

1*) Clothing or clothing fabrics, e.g. sportswear, leisurewear etc.

2*) Shade textiles (sun protective textiles) e.g. awnings, sunblinds, sunshades etc.

Testing as new – Screening

A screening measurement for the UV protection factor as new is carried out on all samples submitted following proper acclimatisation and preparation of the sample.

Testing, e.g. under the Australasian Standard AS/NZS 4399:1996 would be complete at this stage. Under the UV Standard 801, however, tests are also carried out on the actual stresses and strains on the material arising during use.

1.1 "Clothing and clothing fabrics" article group

In the "Clothing and clothing fabrics" article group, the UV protection factor is determined for fabrics when new, abraded, laundered and/or dry cleaned, both in a stretched and in a stretched and wet condition.

+ Stretching

The test samples are stretched both lengthwise and crosswise on a stretching device. The test samples are then fixed in this state on the sample retainer and the UV protection factor is determined.



+ Wetting

The stretched test samples are completely immersed in a wetting agent/water mixture to wet them. The UV protection factor of the samples is then determined immediately.

+ Abrasion

For consumer products in the "Clothing and clothing fabrics" article group, two test samples are subjected to a pilling test (wear simulation).



+ Care treatment

For washable consumer products in the "Clothing and clothing fabrics" article group, two test samples are laundered in accordance with the instructions on the care label.

For consumer products in the "Clothing and clothing fabrics" article group which can be dry-cleaned, two test samples are undergo a dry cleaning treatment.

1.2 "Shade textiles" article group

In the "Shade textiles" article group the UV protection factor of new and weathered fabric is determined both in a stretched, and in a stretched and wet condition.

2. Evaluation & Certification

The UV protection factor is determined using measurements in line with Appendix A of the Australasian Standard AS/NZS 4399:1996. The erythema effectiveness table included in Appendix B1 and the spectral irradiation of the sun included in Appendix B2 are also taken into consideration. The applicant receives a test report detailing the values determined.

In accordance with the objective of the UV Standard 801, the samples submitted are certified on the basis of the lowest UV protection factor determined. Certification is allocated using the following levels 2; 5; 10; 15; 20; 30; 40; 60; 80, with the factor determined being rounded down to the next lowest level.

The certificate authorises consumer products that conform to the sample submitted to be labelled with the UV Standard 801.

Contact:

Hohenstein Institutes
Schloss Hohenstein
Head of the Competence Centre for Intelligent Textiles
Dr. Jan Beringer
Tel.: +49 7143 271 641
E-mail: j.beringer@hohenstein.de
www.hohenstein.de

As at: April 2005



**HOHENSTEINER
INSTITUTE**