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Materials Science & Technology

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Satenrozen 2a
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Test Report No 448133

Test assignment:	Determination of the Flammability and of the Smoke Density of textiles non fixed to buildings according to the Directive of the Fire Police, testing of construction materials and parts, version 1988, according to SN 198898 (1987)
Client:	Brigitte Gyselink
Test object:	Web
Order dated of:	08.01.2008
Test object received:	08.01.2008
Test performed:	31.01.2008
Number of pages:	3
Attachments:	-

This report has a validity of five years.

271-bpa- controlled by: *J. Pe.*

Swiss Federal Laboratories for Materials Testing and Research
St. Gallen, 06.02.2008

Expert:

A large, stylized blue ink signature of Patrizia Ballistreri, written in a cursive script.

Patrizia Ballistreri



STS 083

Note: The test results are valid solely for the tested object. The use of the test report for advertizing purposes, any reference to it or the publication of excerpts require the approval of the Empa (see Information Sheet). Test reports and supporting documents are retained for 10 years.

Test sample

Object : **Web**
 Material (decl.) : 100 % Polyester
 Weight approx. : 110 g/m²
 Colour : brown

Determination of the flammability according to SN 198'898 (1987)**Test procedure**

The conditioned samples at a climate according to SNV 95150 are hung in a defined burning chamber and are put into contact at the lower edge with a defined 40 mm long Propane gas flame during 3 s and 15 s. The burner is inclined by 30° relatively to the vertical line.

The damaged length and the afterglow time are assessed for samples which do not ignite; for those which extinct in the measuring length, the afterflame time is also assessed. For all other samples, the rate of flame spread between two markings is determined.

Requirements: Peak of flame $\leq 400\text{mm}$
 Afterflame time max. **5 s**
 Afterglow time max. **300 s**
 Damaged length max. **150 mm**
18 of 20 samples have to fulfil the Requirements

Results: Web

Test condition : as delivered

Lengthwise			Crosswise	
Ignition time	Afterflame time in s	Damaged length in mm	Afterflame time in s	Damaged length in mm
3 s	0	54	0	53
15 s	0	120	0	107

Mean value of 5 samples

melt: yes

Determination of the Smoke Density Following VKF

Test Principle and Procedure

The test procedure for determining the smoke density consists in exposing a defined test body of 30 x 30 mm x 4 mm (at least 2 g) to a defined flame in a standardized device with a defined air flow, and that till the sample has been burnt down. In the course of this test, the maximum measurable light absorption of the so generated smoke is determined by photometry. The smoke density is determined in three tests. Should the results not agree, up to six tests will be effected and the maximum and minimum values crossed off; the average of the results is indeed decisive for the classification.

Classification

Classification	demand
Smoke generation 1 (strong smoke generation)	Maximum light Absorption > 90%
Smoke generation 2 (medium smoke generation)	Maximum light Absorption > 50 – 90%
Smoke generation 3 (slight smoke generation)	Maximum light Absorption 0 – 50%

Result: Web

Maximum light absorption : 82 % (average value of 3 samples)
(individual values : 84 / 79 / 83 %)

Class 2 (medium smoke generation)

Classification Following the Directive for Fire Police Prescriptions, Building Materials and Building Elements, Part B (Test Conditions), Edition 1988

Fire Protection Classification : 5.2

(class 5.2 stands for "low combustible / medium smoke generation")

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