

Empa  
Lerchenfeldstrasse 5  
CH-9014 St. Gallen  
T +41 58 765 74 74  
F +41 58 765 74 99  
www.empa.ch

Serge Ferrari SAS  
Zone Industrielle BP 54  
F - 38352 La Tour Du Pin Cedex

## Test Report N° 5214004494-E

<b>Test assignment</b>	<b>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) ; Smoke determination acc. VKF</b>
Client	Serge Ferrari SAS; F - 38352 La Tour Du Pin Cedex
Test object	>> <b>Soltis B92</b> <<
Client's ref	Ms Merillon Catherine
Order dated	10.12.2013
Test object received	13.12.2013
Test performed	08.01.2014
Number of pages	3
Attachments	/

This report has a validity of five years (Valid till 13.01.2019).

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Empa, Swiss Federal Laboratories for Materials Science and Technology  
St. Gallen, 13.01.2014

Expert



STS 083

Patrizia Ballistreri

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**Test sample (decl.)**

Object **Soltis B92**  
 Material 72% PVC flame retardant + opacifiant film of PVC  
 28% Polyester yarns 1100dtex  
 (PES yarns coated with PVC flame retardant on both sides and varnished + add of an opacifiantfilm of PVC on one side)  
 Weight approx. 650g/m<sup>2</sup> ± 5%  
 Thickness 0.60mm ± 10%  
 Colour white / alu

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

**Test conditions**

**Conditioning**

Samples min. 24h at (20 ± 2) °C / (65 ± 5) % rH.  
 Pre-treatment none, wash durability not tested!

**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 ± 2)mm long Propane gas flame during 3s and 15s. 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 ≤ 400mm  
 Afterflame time max. 5s  
 Afterglow time max. 300s  
 Damaged length max. 150mm  
**18 of 20** samples have to fulfil the Requirements

**Results**

Test condition as delivered (wash durability not tested!)

Sample N°	Flamespread time mm/s	Afterflame time s	Afterglow time s	Damaged length mm	melt and /or dropp off
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Lengthwise: Ignition time 3s

1	-	1	-	16	-
2	-	1	-	13	-
3	-	1	-	13	-
4	-	1	-	9	-
5	-	1	-	9	-

Lengthwise: Ignition time 15s

1	-	1	-	96	-
2	-	5	6	103	-
3	-	4	-	99	-
4	-	3	3	92	-
5	-	14	1	110	-

Crosswise: Ignition time 3s

1	-	1	-	10	-
2	-	1	-	10	-
3	-	1	-	9	-
4	-	1	-	7	-
5	-	1	-	6	-

Crosswise: Ignition time 15s

1	-	5	1	85	-
2	-	22	2	154	-
3	-	1	4	97	-
4	-	2	4	87	-
5	-	2	1	83	-

## **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 x 4) mm at least 2g 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**

<b>Classification</b>	<b>demand</b>
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%

### **Results**

Test body 2g; Sample holder grating

Maximum light absorption 37% (average value of 3 samples)  
(individual values 38 / 34 / 40%)

**Class 3** (slight smoke generation)

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

**Fire Protection Classification : 5.3**

(class 5.3 stands for "low combustible / slight smoke generation")

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