

Bellaterra: October 5th, 2016
File number: **16/13079-1903**
Reference: **SERGE FERRARI, SAS**
Zone Industrielle, BP - 54
38352 LA TOUR DU PIN CEDEX
(FRANCE)



TEST REPORT

Date Sample Received: 2016-09-23
Date Testing Performed: Start: 2016-09-26
End: 2016-09-27

OBJECT OF THE TEST

Determination of the fire behavior of a sample based on the UNE-EN 13773:2003:
« Textiles and textile products. Burning behavior. Curtains and drapes. Classification scheme. »

CHARACTERISTICS OF THE SAMPLE

Perforated fabric sample coated with plastic laminate on both sides, in white and grey (aluminium) colours respectively, was received from the petitioner, measuring approximately 0,3 mm total thick and with the following technical specifications provided to this Laboratory:

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Reference of the sample:	SOLTIS 99
Description:	<p>Mesh polyester YARNS (550 dtex) coated with PVC flame retardant on both side and varnished.</p> <p>Weight: 290 g/m² ± 5% Thickness: 0,32 mm ± 10% Polyester 550 dtex: 38% PVC flame retardant: 62%</p>
Manufacturer:	<p>Serge Ferrari, S.A. Zone Industrielle. BP54 – 38352 La Tour Du Pin Cedex</p>

Sample is composed of 3 layers:

- Layer 1: PVC flame retardant, measuring 0,12 mm ± 10%, 90 g/m² ± 10% of weight and aluminium colour.
- Layer 2: Polyester Yarns 550 dtex, measuring 0,10 mm ± 10%, 110 g/m² ± 10% of weight and in white colour.
- Layer 3: PVC flame retardant, measuring 0,10 mm ± 10%, 90 g/m² ± 10% of weight and white/alu colours.

Flame retardant used: Aluminium trioxide, antimony trioxide included in the formulation of PVC.

Coated samples: Acrylic varnished 5 microns dry.

APPLICATION

Solar protection.

MAINTENANCE

Washing with sopa and water.

REQUESTED TEST

Fire reaction test according to UNE-EN 13773:2003.

RESULTS

Cleaning the sample: According to paragraph 4 of the standard UNE-EN 1101:96 and 8.2 of the standard UNE-EN 13772:2011 and in accordance with the indications of the petitioner, cleaning was not performed for not being this for a suitable repeated cleaning.

Conditioning: The samples were being conditioned for at least 24 hours in a conditioning chamber (20 ± 2)°C and at (65 ± 5)% relative humidity, according to paragraph 6 of the UNE-EN 1101:96 and point 9 of the UNE-EN 13772:2011.

Type of gas: commercial propane.

Flammability test according to the standard UNE-EN 1101:96 and UNE-EN 1101:96+A1:2005

Sample collection and processing operation according to UNE-EN ISO 6940:2004.

Time of application of flame and type of ignition (bottom) according to UNE-EN 13773:2003.

While the test was carried out, the environmental conditions of the laboratory were maintained at a temperature of (20 ± 10)°C, at relative humidity between (15-80)% and an air movement less than 0,2 m/s according to paragraph 8.2 of the UNE-EN ISO 6940:2004.

The test was performed with specimens of 200 x 80 mm according to paragraph 9.2 of the UNE-EN ISO 6940:2004.

Transversal direction:

Time of application (sec)	Number of cases of ignition	Number of cases of non-ignition
1,0	0	1
2,0	0	1
3,0	0	1
4,0	0	1
5,0	0	1
10,0	0	1
15,0	0	1
20,0	0	5
Time uncertainty (k=2): $\pm 0,6$ s		

Average time of ignition: Not observable.

Longitudinal direction:

Time of application (sec)	Number of cases of ignition	Number of cases of non-ignition
1,0	0	1
2,0	0	1
3,0	0	1
4,0	0	1
5,0	0	1
10,0	0	1
15,0	0	1
20,0	0	5
Time uncertainty (k=2): $\pm 0,6$ s		

Average time of ignition: Not observable.

Minimum time of ignition: Not observable

Ignitability: NO IGNITION

Flame spread test samples oriented vertically with flame ignition source large (UNE-EN 13772:2003)

While the test was carried out, the environmental conditions of the laboratory were maintained at a temperature of $(20 \pm 10)^\circ\text{C}$, at relative humidity of $(50 \pm 15)\%$ and a air movement less than 0,2 m/s according to paragraph 8.2 of the UNE-EN ISO 6941:2004.

		Longitudinal						Transversal					
		Front			Back			Front			Back		
Test		I	II	III	I	II	III	I	II	III	I	II	III
Starting point to break 1 st thread (s)		--	/	/	--	--	--	--	/	/	--	--	--
Starting point to break 2 nd thread (s)		--	/	/	--	--	--	--	/	/	--	--	--
Starting point to break 3 rd thread (s)		--	/	/	--	--	--	--	/	/	--	--	--
Fall of flammable materials		No	/	/	No	No	No	No	/	/	No	No	No
Maximum charred distance (mm)		120,0	/	/	120,0	140,0	120,0	120,0	/	/	120,0	120,0	120,0
Uncertainty (k=2)	Time	Not applicable											
	Length	$\pm 1,5 \text{ mm}$											

For classification of the sample follows the criteria set out in paragraph 5.2 of the UNE-EN 13773:2003.

**Classification of the sample presented with reference SOLTIS 99, is classified according to UNE-EN 13773:2003:
Class 1**

Fire Laboratory Responsible
LGAI Technological Center S.A.

Fire Reaction Responsible
LGAI Technological Center S.A.

The results refer exclusively to the samples tested and at the time and conditions indicated.

The expanded uncertainty stated is based on a typical uncertainty multiplied by a coverage factor, $k=2$ which, for a normal distribution, provide a reliability level of approximately 95%.

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In the framework of our improvement program, we would appreciate any comment you may deem appropriate. These should be addressed to the manager who signs this document, or to the Quality Director of Applus+, at the following address: satisfaccion.cliente@appluscorp.com
