

## TEST REPORT

**2019AN1937**

### DATE OF RECEPTION

17/06/2019

### DATE TESTS

Starting: 17/06/2019

Ending: 05/07/2019

### APPLICANT

GABRIEL A/S  
HULMAGERVEJ 55  
DK-9000 Ålborg

Att. Claus Johansen

### IDENTIFICATION AND DESCRIPTION OF SAMPLES

#### REFERENCES

FABRIC Fame 60033 Light Grey

### TESTS CARRIED OUT

- COLOUR FASTNESS TO ARTIFICIAL LIGHT.
- COLOUR FASTNESS TO RUBBING.
- DETERMINATION OF THE SLIPPAGE RESISTANCE OF YARNS AT A SEAM IN WOVEN FABRICS: FIXED LOAD METHOD.
- DETERMINATION OF BREAKING STRENGTH AND ELONGATION.
- DETERMINATION OF TEAR RESISTANCE.
- EVALUATION OF THE IGNITABILITY OF UPHOLSTERED FURNITURE.
- MEANING OF COLOUR FASTNESS APPRAISAL EVALUATED WITH GREY SCALE.

Tests marked with \* are not included within the scope of the ENAC accreditation

**Rev.1** Esta revisión anula y sustituye a la anterior / *This revision cancels and replaces the previous*

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## RESULTS

### COLOUR FASTNESS TO ARTIFICIAL LIGHT

**Standard**

EN ISO 105-B02:2014. Method 2

**Apparatus**

Xenotest 440 02423E06

**Exposure conditions**

Normal

**Evaluation conditions**

Light camera Gretagmacbeth (02021N06)

Reference	Light fastness
FABRIC Fame 60033 Light Grey	5-6

**REMARK**

The fastness grade indicated comes up to:

- Depth change: More clear
- Hue change: No notes
- Brightness change: No notes

**MEANING OF COLOUR VALUES FASTNESS TO ARTIFICIAL LIGHT**

VALUE	MEANING
8	EXCELLENT
7	VERY GOOD
6	GOOD
5	MODERATE
4	FAIR
3	POOR BEHAVIOUR
2	POOR BEHAVIOUR
1	VERY POOR

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## RESULTS

### COLOUR FASTNESS TO RUBBING

**Standard**

ISO 105-X12:2016

**Apparatus**

Crockmeter

**Starting test date**

17/06/2019

**Ending test date**

25/06/2019

**Conditioning time**

> 4 H

**Atmosphere for conditioning and testing**

**Temperature**

(20±2) °C

**Relative Humidity**

(65±2) %Hr

**Pin**

Cylindrical

**Applied force**

(9 ± 0,2) N

**% of water absorption for rubbing in humid**

95-100 %

REFERENCE	DIRECTION	DRY STAINING	WET STAINING
FABRIC Fame 60033 Light Grey	Warp	4-5	4-5
	Weft	4-5	4-5

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## RESULTS

### DETERMINATION OF THE SLIPPAGE RESISTANCE OF YARNS AT A SEAM IN WOVEN FABRICS: FIXED LOAD METHOD

**Standard**

EN ISO 13936-2:2004

**Apparatus**

INSTRON Dynamometer

**Atmosphere for conditioning and testing**

Temperature (20±2) °C

Relative Humidity (65±4) %

**Maximum force**

180 N

**Woven fabrics**

Upholstery fabrics

Reference	Stitching direction	Maximum opening measured after reduction of force to 5.0 N (average values)
FABRIC FAME 60033 LIGHT GREY	Warp	3.50 mm
	Weft	4.00 mm

**REQUISITE ACCORDING TO STANDARD EN 14465:2003+A1:2006 FOR UPHOSLSTERY FABRICS**

Test	Unit	Level of Behavior						
SEAM	mm.	<table border="1"> <tr> <td>A</td> <td>B</td> <td>C</td> </tr> <tr> <td>≤ 4</td> <td>≤ 6</td> <td>≤ 8</td> </tr> </table>	A	B	C	≤ 4	≤ 6	≤ 8
A	B	C						
≤ 4	≤ 6	≤ 8						

LEVEL A
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## RESULTS

### DETERMINATION OF BREAKING STRENGTH AND ELONGATION

**Standard**

EN ISO 13934-1:2013

**Apparatus**

INSTRON Dynamometer

**Conditioning date**

26/06/2019 – 03/07/2019

**Test date**

03/07/2019

**Gauge length**

200 mm

**Rate of extension**

100 mm/min

**Pretension**

<b>Warp</b>	5 N	<b>Weft</b>	5 N
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**Atmosphere for conditioning and testing**

<b>Temperature</b>	(20±2) °C	<b>Relative humidity</b>	(65±4) %
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**Nº of specimens**

<b>Tested</b>	5 for each direction	<b>Rejected</b>	0
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Reference	FABRIC FAME 60033 LIGHT GREY				
Direction	Average load (N)	C.V. (%)	Elongation to the maximum load (%)	Elongation at 150 N Load (%)	C.V. (%)
<b>Warp</b>	900	2.0	39.0	6.6	4.6
<b>Weft</b>	930	2.0	39.0	7.1	4.6

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## RESULTS

### DETERMINATION OF TEAR RESISTANCE

**Standard**

EN ISO 13937-3:2000

**Apparatus**

INSTRON Dynamometer

**Atmosphere for conditioning and testing**

**Temperature** (20±2) °C      **Relative humidity** (65±4) %

**Nº of specimens**

**Tested** 5 for each direction      **Rejected** 0

**The calculation of averages has been made**

For electronic device

Reference	Tear	Average load (N)	C.V. (%)
FABRIC FAME 60033 LIGHT GREY	Warp	170	27.0
	Weft	130	11.0

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## RESULTS

### EVALUATION OF THE IGNITABILITY OF UPHOLSTERED FURNITURE

#### DESCRIPTION OF SAMPLE

##### Sample description and end use application

Grey fabric with an estimated weight of 450 g/m<sup>2</sup>. Composition: 95/5% W/PAr. Reference: "Fame Color name and number: L. Grey 60033", according to client.

##### Object and scope EN 1021:2014

This European Standard specifies a test method to assess the ignitability of material combinations, such as covers and fillings used in upholstered seating, when subjected to a smoldering cigarette and a gas flame equivalent to a match flame as an ignition source.

The tests measure only the ignitability of a combination of materials used in upholstered seating and not the ignitability of a particular finished item of furniture incorporating these materials. They give an indication of, but cannot guarantee, the ignition behavior of the finished item of furniture.

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## RESULTS

**Standard**

EN 1021-1:2014

**Sample uncertainty**

± 0,554 s; ± 2,393 mm

**Deviations to the standard**

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**Pre-treatment**

By the clause 7.1 of the EN 1021-1:2014 standard, the material hasn't been carried out any ageing procedure, because it does not contains any flame retardant treatment, it is been formulated as flame retardant or it is flame retardant intrinsically, according to client

**Conditioning**

24 h (for at least) / (23±2) °C and (50±5) %HR

**Ambiental condition test**

23.6 °C and 49.0 %HR

**Speed air**

0,07 m/s

**Filling material**

Non-fire retardant polyurethane foam having density of 20-22 Kg/m<sup>3</sup>

**Date test**

25/06/2019

**Observations**

The test results relate to the behavior of the test specimens of a product under the particular conditions of the test; they are not interested to be the sole criterion for assessing the potential fire hazard of the product in use.

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## RESULTS

### Ignition source

#### Smouldering cigarette

- a) Smouldering escalating unsafe
- b) Test assembly consumed
- c) Smoulders specimen extremities
- d) Smoulders through thickness
- e) Smoldering more than an hour
- f) Shows evidence of active smouldering
- g) cigarettes Self-extinguis
- h) Result: P = Pass | F = Fail.

### Trade name

Fame Color name and number: L. Grey 60033

Specimen	a	b	c	d	e	f	g	h
Specimen 1	no	no	no	no	no	no	no	P
Specimen 2	no	no	no	no	no	no	no	P
Specimen 3*	---	---	---	---	---	---	---	---

\*NOTE: 3rd cigarette is tested only in self-extinguishing case.

### Notes

A moderate emission of white smoke was observed during the test.

PASS

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## RESULTS

CRITERIA OF IGNITION PROGRESSIVE SMOULDERING IGNITION
a) Any test assembly that displays escalating combustion behavior so that it is unsafe to continue the test and active extinction is necessary.
b) Any test assembly that smolders until it is largely consumed within the test duration.
c) Any test assembly that smolders to the extremities of the specimen, viz, upper or lower margins, either side or to its full thickness, within the duration of the test.
d) Any test assembly that smolders for more than one hour.
e) Any test assembly that, on final examination, shows evidence of active smoldering.

### Remark

A flaming ignition is considered to be the occurrence of any flames initiated by a smoldering source.

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## RESULTS

### MEANING OF COLOUR FASTNESS APPRAISAL EVALUATED WITH GREY SCALE

VALUE	MEANING
5	VERY GOOD-EXCELLENT
4	GOOD
3	FAIR-MODERATE
2	POOR BEHAVIOUR
1	VERY POOR

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**Isabel Soriano**  
**Chief of Innovation Area**

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- 14.- The client must attend at all times, to the dates of the realization of the tests.
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