



# Confidential Report

**Our Ref: 23/61677B/01/24**





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Date: 08 January 2024

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**Client:** Gabriel A/S

Hjulgagerve 55  
DK-900 Aalborg  
Denmark

**Job Title:** Fire Test on One Fabric Sample

**Clients Order Ref:** --

**Date of Receipt:** 03 January 2024

**Date Test Started:** 08 January 2024

**Description of Sample:** One sample of fabric, which was referenced by the client as;  
Tailor, col. 61305

**Work Requested:** We were asked to test the received sample to the following standard:  
BS EN 1021:Parts 1 & 2:2014 – Ignitability of Upholstered Furniture

- \* subcontracted test, UKAS accredited
- \*\* subcontracted test, EN ISO/IEC 17025 accredited
- \*\*\* not UKAS accredited

Note: This report relates only to the items tested.



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Client: Gabriel A/S

## FIRE TEST ACCORDING TO BS EN 1021-1:2014

### Assessment of the ignitability of upholstered furniture. Part I. Ignition Source 0: Smouldering cigarette

#### Pre-Treatment

The material received no pre-treatment as the fabric is stated not to be FR treated.

#### Conditioning

The materials for testing to Source 0 and 1 were conditioned for a minimum of 24 hours and tested in the environments specified in Clause 7 of BS EN 1021-1 & 2:2014.

The sample was tested in a room of volume 25m<sup>3</sup> and 18°C.

#### Procedure

The test was carried out in accordance with BS EN 1021-1:2014. The sponsor sampled the material and the specimens were cut from the sample received to the dimensions set out in the standard.

The sample was tested over non-fire retardant polyurethane foam with a density of approximately 20-22kg/m<sup>3</sup>.

Tests were made using ignition source 0.

#### Requirements

The specimens shall not:-

#### Smouldering Criteria

- display escalating combustion requiring active extinction.
- smoulder or burn until it is essentially consumed within the test duration.
- smoulder or burn to the extremities of the specimen, or through the full thickness, within the duration of the test.
- smoulder for more than one hour.
- on final examination, show evidence of progressive smouldering.



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Client: **Gabriel A/S**

**Requirements (continued)**

Flaming Criteria

- a) show evidence of flaming initiated by a smouldering source.

**Results**

|   | Specimen No. |    |                |
|---|--------------|----|----------------|
| Smouldering criteria                                      | 1            | 2  | 3 <sup>1</sup> |
| Unsafe escalating combustion                              | No           | No | ---            |
| Testing assembly consumed                                 | No           | No | ---            |
| Smoulders to extremities/full thickness                   | No           | No | ---            |
| Smoulders more than 1 hour                                | No           | No | ---            |
| In final examination, presence of progressive smouldering | No           | No | ---            |

| Flaming criteria   | 1         | 2         | 3 <sup>1</sup> |
|--|-----------|-----------|----------------|
| Occurrence of flames                                       | No        | No        | ---            |
| <b>Specimen Result</b><br>Ignition (I) / Non Ignition (NI) | <b>NI</b> | <b>NI</b> | ---            |

Any “Yes” in smouldering or flaming criteria means Ignition

**Cigarette Test Result Pass**

**Note**

The test results relate only to the ignitability of the combination of materials under the particular conditions of test; they are not intended as a means of assessing the full potential fire hazard of the materials in use.

**Comments**

An NI designation indicates that the sample meets the performance requirements of BS EN 1021-1.





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Client: Gabriel A/S

## FIRE TESTS ACCORDING TO BS EN 1021-2:2014

### Assessment of the ignitability of upholstered furniture. Part 2. Ignition Source 1: Match flame equivalent.

#### Pre-Treatment

The material received no pre-treatment as the fabric is stated not to be FR treated.

#### Conditioning

The sample was conditioned for at least 24 hours at a temperature of  $23\pm 2^{\circ}\text{C}$  and relative humidity of  $50\pm 5\%$ .

The sample was tested in a room of volume  $25\text{m}^3$  and  $18^{\circ}\text{C}$ .

#### Procedure

The test was carried out in accordance with BS EN 1021-2:2014. The sponsor sampled the material and the specimens were cut from the sample received to the dimensions set out in the standard.

The sample was tested over non-fire retardant polyurethane foam with a density of approximately  $20\text{-}22\text{kg/m}^3$ .

Tests were made using ignition source 1.



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**Client:** Gabriel A/S

## Requirements

The specimens shall not:-

### Smouldering Criteria

- a) display escalating combustion requiring active extinction.
- b) smoulders until it is essentially consumed within the test duration.
- c) smoulder to the extremities of the specimen, or through the full thickness, within the duration of the test.
- d) smoulder for more than one hour.
- e) show evidence of charring, other than discolouration, for more than 100mm in any direction apart from the nearest part of the original position of the source.

### Flaming Criteria

- a) display escalating combustion requiring active extinction.
- b) burns until it is essentially consumed within the test duration.
- c) burns to the extremities of the specimen, or through the full thickness, within the duration of the test.
- d) exhibit any flaming for more than 120 seconds after removal of the burner tube.



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**Results**

| Smouldering criteria                                      | Specimen No. |    |                |
|---|--------------|----|----------------|
|   | 1            | 2  | 3 <sup>1</sup> |
| Unsafe escalating combustion                              | No           | No | ---            |
| Testing assembly consumed                                 | No           | No | ---            |
| Smoulders to extremities/full thickness                   | No           | No | ---            |
| Smoulders more than 1 hour                                | No           | No | ---            |
| In final examination, presence of progressive smouldering | No           | No | ---            |

| Flaming criteria   | Specimen No. |           |                |
|--|--------------|-----------|----------------|
|  | 1            | 2         | 3 <sup>1</sup> |
| Unsafe escalating combustion                               | No           | No        | ---            |
| Testing assembly consumed                                  | No           | No        | ---            |
| Flames to extremities/full thickness                       | No           | No        | ---            |
| Flames longer than 120 seconds                             | No           | No        | ---            |
| <b>Specimen Result</b><br>Ignition (I) / Non Ignition (NI) | <b>NI</b>    | <b>NI</b> | ---            |

Any "Yes" in smouldering or flaming criteria means Ignition

**Match Test Result**      **Pass**

**Note**

The test results relate only to the ignitability of the combination of materials under the particular conditions of test; they are not intended as a means of assessing the full potential fire hazard of the materials in use.

**Comment**

An NI designation indicates that the sample meets the performance requirements of BS EN 1021-2.





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Where required to make a judgement to any pass/fail criteria an estimation of uncertainty of measurement has been taken into account. Under our Policy we have used a non-binary decision rule.

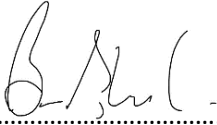
See our decision rules Policy (<https://www.bttg.co.uk/about-us/decision-rules-policy/>) for further information.

## Uncertainty Budget

The overall uncertainty budget for both BS EN 1021: Part 1 and 2:2014 is as follows:-

Timings:  $\pm 2$  seconds.  
Measurements:  $\pm 2$ mm.

Reported by:  R Greasley, Laboratory Technician

Countersigned by:  B Bland, Technical Customer Service Officer

Enquiries concerning this report should be addressed to Customer Services.

