

Date: 27 January 2021

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Your Ref: 0011512406

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Client: Gabriel A/S  
Hjulgagervej 55  
DK-900 Aalborg  
DENMARK

Job Title: BS EN 1021 Parts 1 & 2

Client's Order No: 0011512406

Date of Receipt: 04 January 2021

Date of Test Start: 25 January 2021

Description of Sample(s): One sample of fabric identified as follows was received for testing:

Comfort + / Grey Itc

Work Requested: We were asked to make the following test:

BS EN 1021-1:2014 and BS EN 1021-2 2014





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Sample was identified as follows:

Comfort + / Grey Itc

Wira House, West Park Ring Road,  
Leeds, LS16 6QL, UK.  
Telephone: +44 (0)113 259 1999  
Email: [info@bttg.co.uk](mailto:info@bttg.co.uk)  
Website: [www.bttg.co.uk](http://www.bttg.co.uk)

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

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

#### Pre-Treatment

The sample was water-soaked and dried in accordance with BS EN 1021 Part 1:Annex D.

#### Conditioning

The sample was conditioned for at least 16 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  $15^{\circ}\text{C}$ .

#### 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 combustion modified polyurethane foam with a density of approximately  $35\text{ kg/m}^3$ .

Tests were made using ignition source 0.

#### Requirements

The specimens shall not:-

#### Smouldering Criteria

- a) display escalating combustion requiring active extinction.
- b) smoulder or burn until it is essentially consumed within the test duration.
- c) smoulder or burn 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) on final examination, show evidence of progressive smouldering.



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## Requirements (continued)

### Flaming Criteria

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

### Results

|                                                           | Cigarette |    |                | Comments |
|-----------------------------------------------------------|-----------|----|----------------|----------|
|                                                           | 1         | 2  | 3 <sup>1</sup> |          |
| <b>Smouldering Criteria (Yes/No)</b>                      |           |    |                |          |
| Unsafe escalating combustion                              | No        | No |                |          |
| Test assembly consumed                                    | No        | No |                |          |
| Smoulders to extremities                                  | No        | No |                |          |
| Smoulders through thickness                               | No        | No |                |          |
| Smoulders more than 1 hour                                | No        | No |                |          |
| In final examination, presence of progressive smouldering | No        | No |                |          |
| <b>Ignitability Performance (Yes/No)</b>                  |           |    |                |          |
| Occurrence of flames                                      | No        | No |                |          |
| Ignition / Non Ignition ( I/NI )                          | NI        | NI |                |          |

<sup>1</sup> Results for cigarette 3, only if applicable.

### 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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## 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 sample did not have a flame retardant treatment therefore it was not subjected to a water soak pre-treatment

### Conditioning

The sample was conditioned for at least 16 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  $15^{\circ}\text{C}$ .

### 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 combustion modified polyurethane foam with a density of approximately  $35\text{ kg/m}^3$ .

Tests were made using ignition source 1.

### 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.



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## Requirements (Continued)

### 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.

## Results

|                                                           | Match Flame Equivalent |    | Comments |
|-----------------------------------------------------------|------------------------|----|----------|
|                                                           | 1                      | 2  |          |
| <b>Smouldering Criteria (Yes/No)</b>                      |                        |    |          |
| Unsafe escalating combustion                              | No                     | No |          |
| Test assembly consumed                                    | No                     | No |          |
| Smoulders to extremities                                  | No                     | No |          |
| Smoulders through thickness                               | No                     | No |          |
| Smoulders more than 1 hour                                | No                     | No |          |
| In final examination, presence of progressive smouldering | No                     | No |          |
|                                                           |                        |    |          |
| <b>Ignitability Performance (Yes/No)</b>                  |                        |    |          |
| Unsafe escalating combustion                              | No                     | No |          |
| Test assembly consumed                                    | No                     | No |          |
| Flames to extremities                                     | No                     | No |          |
| Flames through thickness                                  | No                     | No |          |
| Flames longer than 120 seconds                            | No                     | No |          |
| Ignition / Non Ignition ( I/NI )                          | NI                     | NI |          |

## 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.



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## Comments

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

This report relates only to the samples submitted and as described in the report.

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

Timings:  $\pm 2$  seconds.

Reported by:.....  
B Bland  
Laboratory Technician

Countersigned By:.....  
P Doherty  
Manager

Enquiries concerning this report should be addressed to Customer Services.



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