



Confidential Report

Our Ref: 23/60289D/10/22





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

Date: 1 November 2022

Our Ref: 23/60289D/10/22

Your Ref: --

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Client:

Kvadrat A/S

Lundbergsvej
8400 Ebeltoft
Denmark

Job Title:

Fire Test on One Fabric Sample

Clients Order Ref:

0541190

Date of Receipt:

24 October 2022

Date Test Started:

8 November 2022

Description of Sample:

One sample of fabric, which was referenced by the client as;
Heather, stated to be 97% new wool, 3% recycled nylon

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: **Kvadrat 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 25m³ 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 20-22 kg/m³.

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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Client: **Kvadrat A/S**

Requirements (continued)

Flaming Criteria

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

Results

| Smouldering criteria | Specimen No. | | |
|---|--------------|----|----------------|
| | 1 | 2 | 3 ¹ |
| 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 ¹ |
|--|-----------|-----------|----------------|
| Occurrence of flames | No | No | --- |
| Specimen Result Ignition (I) / Non Ignition (NI) | NI | NI | --- |

Any “Yes” in smouldering or flaming criteria means Ignition

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: **Kvadrat 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 25m^3 and 18°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.

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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Client: **Kvadrat A/S**

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

| Smouldering criteria | Specimen No. | | |
|---|--------------|----|----------------|
| | 1 | 2 | 3 ¹ |
| 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 ¹ |
|--|------------------------------|-----------|----------------|
| | Unsafe escalating combustion | No | No |
| Testing assembly consumed | No | No | --- |
| Flames to extremities/full thickness | No | No | --- |
| Flames longer than 120 seconds | No | No | --- |
| Specimen Result Ignition (I) / Non Ignition (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.

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.

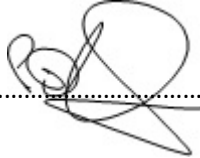
See our decision rules Policy (<https://www.bttg.co.uk/about-us/decision-rules-policy/>) for further information.

Uncertainty Budget

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

Timings: ± 2 seconds.

Reported by:.....
B Bland
Technical Customer Service Officer

Countersigned By:.....
P Doherty
Manager

Enquiries concerning this report should be addressed to Customer Services.



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