



Confidential Report

Our Ref: 23/60792A/05/23





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: 12 May 2023

Our Ref: 23/60972A/05/23
Your Ref: --

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Client:

Kvadrat A/S

Lundbergsvej 10
8400 Ebeltoft
Denmark

Job Title:

Fire Test on One Fabric Sample

Clients Order Ref:

0674627

Date of Receipt:

3 May 2023

Date Test Started:

12 May 2023

Description of Sample:

One sample of fabric, which was referenced by the client as;

Manhattan, stated to be 32% cotton, 20% viscose, 20% polyacrylic, 16% new wool, 8% polyester, 4% 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 to not have an FR treatment.

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 19°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 34-36 kg/m³.

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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Requirements (continued)

Flaming Criteria

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

Results

| | Specimen No. | | |
|---|--------------|----|----------------|
| Smouldering criteria | 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 to not have an FR treatment.

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 19°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 $34\text{-}36\text{ kg/m}^3$.

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 | NI | NI | --- |
| Ignition (I) / Non Ignition (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 I 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.
Measurements: ± 2 mm.

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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