



Confidential Report

Our Ref: 23/62342A/08/24





Wira House, West Park Ring Road, Leeds, LS16 6QL, UK.
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Website: www.bttg.co.uk

Date: 27 August 2024

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Client: **Kvadrat A/S**

Lundbergsvej 10
8400 Ebeltoft
Denmark

Job Title: Fire Test on One Fabric Sample

Clients Order Ref:

Date of Receipt: 19 August 2024

Date Test Started: 23 August 2024

Description of Sample: One sample of fabric, which was referenced by the client as;
Hallingdal 65, 70% new wool, 30% viscose.

Work Requested: We were asked to make the following fire test:
BS 7176: 2007 + A1:2011 (Medium Hazard)

- * 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

Specification BS 7176: 2007 + A1:2011 Resistance to Ignition of Upholstered Furniture for non-domestic seating by testing composites using BS EN 1021:2006 Furniture – Assessment of the ignitability of upholstered furniture Parts 1 and 2 and BS 5852:Clause 11:2006 (Medium Hazard)

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 & 2:2006.

Foam Used

The sample was tested over combustion modified polyurethane foam with a density of approximately 34-36kg/m³.



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Client: **Kvadrat A/S**

Testing to BS EN 1021-1:2006 – Source 0 – Cigarette

The sample was tested in accordance with BS EN 1021-1:2006.

The test results relate only to the ignitability of the combustion of upholstery composites under the particular conditions of test stated, they are not intended as a means of assessing the full potential fire hazard of the materials of products in use.

Results

	Specimen No.	
Smouldering criteria	1	2
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

	1	2
Flaming criteria		
Occurrence of flames	No	No
Specimen Result (Ignition or Non-ignition)	Non-Ignition (NI)	Non-Ignition (NI)

Any “Yes” in smouldering or flaming criteria means Ignition

Cigarette Test Result PASS





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Client: **Kvadrat A/S**

BS EN 1021-2: 2006 – Source 1 – Butane Flame (Match)

The sample was tested in accordance with BS EN 1021-2:2006.

The test results relate only to the ignitability of the combustion of upholstery composites under the particular conditions of test stated, they are not intended as a means of assessing the full potential fire hazard of the materials of products in use.

Any “Yes” in smouldering or flaming criteria means Ignition

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

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

Match Test Result PASS



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Client: Kvadrat A/S

Testing BS 5852:Clause 11:2006 (2011) Assessment of the ignitability of upholstered seating by Smouldering and Flaming Sources – Source 5 (Crib 5)

The material received no pre-treatment as the fabric is stated not to be FR treated. The sample was conditioned and tested in the environments specified in Clause 10 of BS 5852:2006 (2011).

The material was tested in accordance with the above standard using Source 5 (Crib 5). The sample was tested at 21°C and 51% r.h.

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

Results

	Specimen 1	Specimen 2
Time of Ignition (mins/secs)	0.15	0.16
Time of Flame Extinction (mins/secs)	5.51	5.16
Time of Smoke Extinction (mins/secs)	7.33	6.48
Time of cover split (mins/secs)	DNO	DNO
Extent of damage (mm) - Seat		
Width	102	96
Length	71	68
Depth	35	31
Extent of damage (mm) - Back		
Width	100	102
Depth	32	33
Melting	No	No
Dripping	No	No
Charring	Yes	Yes
Comments and Observations	DNO	DNO
Specimen Result (Ignition or Non-ignition)	Non-Ignition	Non-Ignition

Acronyms

ME – Manually extinguished
 DNO – Did not observe time of event

EC – Escalating combustion

DNS – Material did not split

BTT – Burnt through thickness of foam DNI – Did not ignite



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Comment

The results indicate 'Non-Ignition' of the materials and the test is designated NI/5 (ie. Pass).

Conclusion

The combination of materials meet BS 7176:2007 + A1:2011 for Medium Hazard.

See BS 7176:2007 + A1:2011 Clause 6 for labelling and identification requirements. The test results relate only to the ignitability of the combination of upholstery composites under the particular conditions of test stated (BS EN 1021-1: 2006, BS EN 1021-2: 2006 and BS 5852: 2006 respectively); they are not intended as a means of assessing the full potential fire hazard of the materials or products in use.

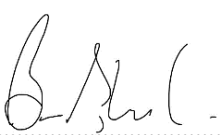
Where required to make a judgement to any pass/fail criteria an estimation of uncertainty of measurement has been taken into account. Under our Policy we have used a non-binary decision rule.

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

Uncertainty Budget

Measurements: $\pm 2\text{mm}$
Timings: ± 2 seconds.

Reported by:  R Greasley, Laboratory Technician

Countersigned by:  B Bland, Technical Customer Service Officer

Enquiries concerning this report should be addressed to Customer Services.

