



# Confidential Report

Our Ref: 23/60124/09/22





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

Date: 13 September 2022

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**Client:**

**The Sign AG**

Neuseeland 32  
9404 Roschacherberg  
Switzerland

**Job Title:**

Fire Test on One Fabric Sample

**Clients Order Ref:**

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**Date of Receipt:**

5 September 2022

**Date Test Started:**

9 September 2022

**Description of Sample:**

One sample of fabric, which was referenced by the client as;  
Royal Velvet 30640

**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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**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 35-36kg/m<sup>3</sup>.



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

The sample was tested in accordance with BS EN 1021-1:2006. The sample was tested over combustion modified polyurethane foam with a density of approximately 35-36kg/m<sup>3</sup>.

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

Smouldering criteria	Specimen No.	
	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

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

Any “Yes” in smouldering or flaming criteria means Ignition

**Cigarette Test Result      PASS**



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

The sample was tested in accordance with BS EN 1021-2:2006. The sample was tested over combustion modified polyurethane foam with a density of approximately 35-36kg/m<sup>3</sup>.

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.

Smouldering criteria	Specimen No.	
	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

Flaming criteria	1	2
	Unsafe escalating combustion	No
Testing assembly consumed	No	No
Flames to extremities/full thickness	No	No
Flames longer than 120 seconds	No	No
<b>Specimen Result</b> (Ignition or Non-ignition)	<b>Non-Ignition</b>	<b>Non-Ignition</b>

Any "Yes" in smouldering or flaming criteria means Ignition

**Match Test Result PASS**





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**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) and was tested over approximately 35-36 kg/m<sup>3</sup> combustion modified polyurethane foam. The sample was tested at 22°C and 66% 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 (s)	41	43
Time of Flame Extinction (s)	261	241
Time of Smoke Extinction (s)	379	394
Time of cover split	DNS	DNO
<b>Extent of damage (mm) - Seat</b>		
Width	92	90
Length	77	75
Depth	46	38
<b>Extent of damage (mm) - Back</b>		
Width	91	88
Depth	32	31
Melting	No	No
Dripping	No	No
Charring	Yes	Yes
Comments and Observations	DNS	DNO
<b>Specimen Result (Ignition or Non-ignition)</b>	<b>Non-Ignition</b>	<b>Non-Ignition</b>

**Acronyms**

ME – Manually extinguished      EC – Escalating combustion      DNS – Material did not split  
 DNO – Did not observe time of event      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 meets 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 (<http://www.bttg.co.uk/decision-rules-policy>) for further information.

**Uncertainty Budget**

Measurements: ±2mm  
Timings: ±2 seconds.

Reported by:  B Bland, Technical Customer Services Officer

Countersigned by:  P Doherty, Manager

Enquiries concerning this report should be addressed to Customer Services.



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