



Confidential Report

Our Ref: 23/58400-1-2A



1066

**Notified Body
for PPE Directive,
Construction Products Regulation
& Marine Equipment Directive
I.D. No. 0338 & 0339**



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

Date: 15 April 2021

Our Ref: 23/58400-1-2A
Your Ref: ---

Page: 1 of 6

Client: **Kvadrat A/S**

Lundbergsvej 10
8400 Ebeltøft
Denmark

Job Title: Fire Test on One Fabric Sample

Clients Order Ref: --

Date of Receipt: 29 March 2021

Date Test Started: 09 April 2021

Description of Sample: One sample of fabric, which was referenced by the client as;
Atrium Outdoor, stated to be 100% Trevira CS with water repellent finish

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

BS 7176: 2007 + A1:2011 (Low Hazard)

- * subcontracted test, UKAS accredited
- ** subcontracted test, EN ISO/IEC 17025 accredited
- *** not UKAS accredited



1066

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

Shirley® Technologies Limited. Registered Office: Wira House, West Park Ring Road, Leeds, LS16 6QL.
A company registered in England & Wales with company number 04669651. VAT Number GB 816764800.

BTTG™ and Shirley® are trade names of Shirley Technologies Ltd.
The supply of all goods and services is subject to our standard terms of business, copies of which are available on request.
Our laboratories are accredited to EN ISO/IEC 17025.



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

Date: 15 April 2021

Our Ref: 23/58400-1-2A
Your Ref: ---

Page: 2 of 6

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 (Low Hazard)

Pre-Treatment

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

Conditioning

The materials for testing to Source 0 and 1 were conditioned and tested in the environments specified in Clause 7 of BS EN 1021:2006.

Foam Used

The sample was tested over combustion modified polyurethane foam with a density of approximately 35-36kg/m³.



1066

Shirley® Technologies Limited. Registered Office: Wira House, West Park Ring Road, Leeds, LS16 6QL.
A company registered in England & Wales with company number 04669651. VAT Number GB 816764800.
BTTG™ and Shirley® are trade names of Shirley Technologies Ltd.
The supply of all goods and services is subject to our standard terms of business, copies of which are available on request.
Our laboratories are accredited to EN ISO/IEC 17025.

Copyright © 2021 Shirley Technologies Limited. All rights reserved.



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

Date: 15 April 2021
 Our Ref: 23/58400-1-2A
 Your Ref: ---
 Page: 3 of 6

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 sample was tested over combustion modified polyurethane foam with a density of approximately 35-36kg/m³.

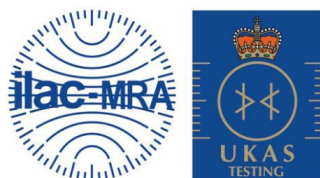
The test results relate only to the ignitability of the combustion of upholstery composites under the particular conditions of test stated, they are not intended as a means of assessing the full potential fire hazard of the materials of products in use.

Results

	Specimen No.	
	1	2
Smouldering criteria	1	2
Placement of Cigarette	Flat	Flat
Unsafe escalating combustion	No	No
Testing assembly consumed	No	No
Smoulders to extremities/full thickness	No	No
Smoulders more than 1 hour	No	No
Char >50mm from source	No	No
In final examination, presence of progressive smouldering	No	No
Flaming criteria	1	2
Occurrence of flames	No	No
Specimen Result (Ignition or Non-ignition)	Non-Ignition	Non-Ignition

Any “Yes” in smouldering or flaming criteria means Ignition

Cigarette Test Result PASS



1066

Shirley® Technologies Limited. Registered Office: Wira House, West Park Ring Road, Leeds, LS16 6QL.
 A company registered in England & Wales with company number 04669651. VAT Number GB 816764800.
 BTTG™ and Shirley® are trade names of Shirley Technologies Ltd.
 The supply of all goods and services is subject to our standard terms of business, copies of which are available on request.
 Our laboratories are accredited to EN ISO/IEC 17025.

Copyright © 2021 Shirley Technologies Limited. All rights reserved.



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

Date: 15 April 2021
 Our Ref: 23/58400-1-2A
 Your Ref: ---
 Page: 4 of 6

Client: Kvadrat A/S

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

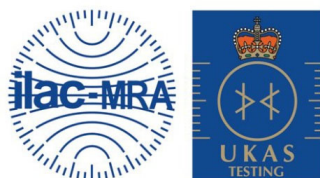
The sample was tested in accordance with BS EN 1021-2:2006. The sample was tested over combustion modified polyurethane foam with a density of approximately 35-36kg/m³.

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.

	Specimen No.	
	1	2
Smouldering criteria		
Placement of Butane Flame	Flat	Flat
Unsafe escalating combustion	No	No
Testing assembly consumed	No	No
Smoulders through thickness	No	No
Smoulders more than 1 hour	No	No
Char >50mm from source	No	No
In final examination, presence of progressive smouldering	No	No
Flaming criteria		
Unsafe escalating combustion	No	No
Testing assembly consumed	No	No
Burns through thickness	No	No
Flames longer than 120 seconds	No	No
In final examination, presence of progressive smouldering	No	No
Specimen Result (Ignition or Non-ignition)	Non-Ignition	Non-Ignition

Any “Yes” in smouldering or flaming criteria means Ignition

Match Test Result **PASS**



1066

Shirley® Technologies Limited. Registered Office: Wira House, West Park Ring Road, Leeds, LS16 6QL.
 A company registered in England & Wales with company number 04669651. VAT Number GB 816764800.
 BTTG™ and Shirley® are trade names of Shirley Technologies Ltd.
 The supply of all goods and services is subject to our standard terms of business, copies of which are available on request.
 Our laboratories are accredited to EN ISO/IEC 17025.

Copyright © 2021 Shirley Technologies Limited. All rights reserved.



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

Date: 15 April 2021

Our Ref: 23/58400-1-2A

Your Ref: ---

Page: 5 of 6


Client: **Kvadrat A/S**

Conclusion

The combination of materials meets BS 7176: 2007 + A1:2011 for Low Hazard.

Uncertainty of measurement has not been taken into account when presenting the test result. The relevant uncertainty value is included as an annex which forms an integral part of the report.

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); they are not intended as a means of assessing the full potential fire hazard of the materials or products in use.

Reported by:  B Bland, Technical Customer Services Officer

Countersigned by:  P Doherty, Manager

Enquiries concerning this report should be addressed to Customer Services.



1066

Shirley® Technologies Limited. Registered Office: Wira House, West Park Ring Road, Leeds, LS16 6QL.
A company registered in England & Wales with company number 04669651. VAT Number GB 816764800.
BTTG™ and Shirley® are trade names of Shirley Technologies Ltd.
The supply of all goods and services is subject to our standard terms of business, copies of which are available on request.
Our laboratories are accredited to EN ISO/IEC 17025.

Copyright © 2021 Shirley Technologies Limited. All rights reserved.



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

Date: 15 April 2021

Our Ref: 23/58400-1-2A
Your Ref: ---

Page: 6 of 6

Client: Kvadrat A/S

Uncertainty Budget - Annex

The overall uncertainty budget for both BS 7176:2007+A1:2011 is as follows:-

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



1066

Shirley® Technologies Limited. Registered Office: Wira House, West Park Ring Road, Leeds, LS16 6QL.
A company registered in England & Wales with company number 04669651. VAT Number GB 816764800.
BTTG™ and Shirley® are trade names of Shirley Technologies Ltd.
The supply of all goods and services is subject to our standard terms of business, copies of which are available on request.
Our laboratories are accredited to EN ISO/IEC 17025.

Copyright © 2021 Shirley Technologies Limited. All rights reserved.