



Confidential Report

Our Ref: 23/59046D/10/21





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: 03 November 2021

Our Ref: 23/59046D/10/21
Your Ref: ---

Page: 1 of 7

Client:

Kvadrat A/S

Lundbergsvej 10
8400 Ebeltoft
Denmark

Job Title:

Fire Test on One Fabric Sample

Clients Order Ref:

--

Date of Receipt:

29 October 2021

Date Test Started:

02 November 2021

Description of Sample:

One sample of fabric, which was referenced by the client as;
Vanir 3172, stated to be 92% new wool 8% 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



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: 03 November 2021

Our Ref: 23/59046D/10/21
Your Ref: ---

Page: 2 of 7

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 sample was conditioned for at least 16 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 17°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 $20\text{-}22\text{kg/m}^3$.

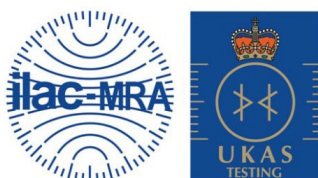
Tests were made using ignition source 0.

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.



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: 03 November 2021

Our Ref: 23/59046D/10/21
 Your Ref: ---

Page: 3 of 7

Client: **Kvadrat A/S**

Requirements (continued)

Flaming Criteria

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

Results

	Specimen No.		
Smouldering criteria	1	2	3¹
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	3¹
Occurrence of flames	No	No	---
Specimen Result Ignition (I) / Non Ignition (NI)	NI	NI	---

Any “Yes” in smouldering or flaming criteria means Ignition

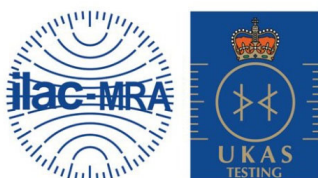
Cigarette Test Result **PASS**

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.





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: 03 November 2021

Our Ref: 23/59046D/10/21
Your Ref: ---

Page: 4 of 7

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 16 hours at a temperature of $23\pm 2^{\circ}\text{C}$ and relative humidity of $50\pm 5\%$.

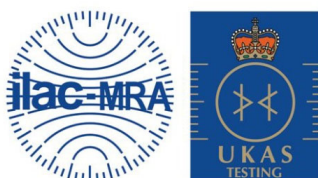
The sample was tested in a room of volume 25m^3 and 17°C .

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.



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.
BTG™ 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: 03 November 2021

Our Ref: 23/59046D/10/21
Your Ref: ---

Page: 5 of 7

Client: Kvadrat A/S

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.

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.



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.

Date: 03 November 2021

Our Ref: 23/59046D/10/21
Your Ref: ---

Page: 6 of 7

Client: **Kvadrat A/S**

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	NI

Any "Yes" in smouldering or flaming criteria means Ignition

Match Test Result **PASS**

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.

Comment

An NI designation indicates that the sample meets the performance requirements of BS EN 1021-2.



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: 03 November 2021

Our Ref: 23/59046D/10/21
Your Ref: ---

Page: 7 of 7

Client: Kvadrat A/S

An estimation of uncertainty of measurement has been taken into account when making a judgment to any pass/fail criteria. Under our Policy we have used a non-binary decision rule.

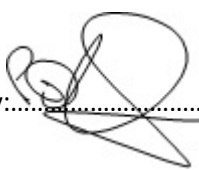
See our Decision rules Policy (<http://www.bttg.co.uk/decision-rules-policy>) for further information.

Uncertainty Budget

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.



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.