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Date: 19 November 2019

Our Ref: 23/56985-1-3  
Your Ref: -

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Client: Kvadrat A/S  
Lundbergsvej 10  
8400 Ebeltoft  
Denmark

Job Title: BS EN 1021 Parts 1 & 2

Client's Order No: -

Date of Receipt: 07 November 2019

Date of Test Start: 14 November 2019

Description of Sample(s): One sample of fabric identified as follows was received for testing:

Silas, 75% new wool, 25% nylon

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

BS EN 1021-1:2014 and BS EN 1021-2 2014



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## Kvadrat A/S

Sample was identified as follows:

Silas, 75% new wool, 25% nylon

## FIRE TESTS ACCORDING TO BS EN 1021-1:2014

### Assessment of the ignitability of upholstered furniture. Part I. Ignition Source 0: Smouldering cigarette

#### Pre-Treatment

The sample was water-soaked and dried in accordance with BS EN 1021 Part 1:Annex D.

#### 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  $25\text{m}^3$  and  $17^{\circ}\text{C}$ .

#### 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  $20\text{-}22\text{ kg/m}^3$ .

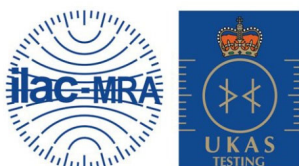
Tests were made using ignition source 0.

#### 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.



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**Kvadrat A/S**

**Requirements (continued)**

Flaming Criteria

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

**Results**

	Cigarette			Comments
	1	2	3 <sup>1</sup>	
<b>Smouldering Criteria (Yes/No)</b>				
Unsafe escalating combustion	No	No		
Test assembly consumed	No	No		
Smoulders to extremities	No	No		
Smoulders through thickness	No	No		
Smoulders more than 1 hour	No	No		
In final examination, presence of progressive smouldering	No	No		
<b>Ignitability Performance (Yes/No)</b>				
Occurrence of flames	No	No		
Ignition / Non Ignition ( I/NI )	NI	NI		

<sup>1</sup> Results for cigarette 3, only if applicable.

**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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## 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 sample was water-soaked and dried in accordance with BS EN 1021 Part 1:Annex D.

#### 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  $25\text{m}^3$  and  $17^{\circ}\text{C}$ .

#### 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.

#### Requirements

The specimens shall not:-

#### Smouldering Criteria

- display escalating combustion requiring active extinction.
- smoulders until it is essentially consumed within the test duration.
- smoulder to the extremities of the specimen, or through the full thickness, within the duration of the test.
- smoulder for more than one hour.
- 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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Kvadrat A/S

## Requirements (Continued)

### Flaming Criteria

- display escalating combustion requiring active extinction.
- burns until it is essentially consumed within the test duration.
- burns to the extremities of the specimen, or through the full thickness, within the duration of the test.
- exhibit any flaming for more than 120 seconds after removal of the burner tube.

## Results

	Match Flame Equivalent		Comments
	1	2	
<b>Smouldering Criteria (Yes/No)</b>			
Unsafe escalating combustion	No	No	
Test assembly consumed	No	No	
Smoulders to extremities	No	No	
Smoulders through thickness	No	No	
Smoulders more than 1 hour	No	No	
In final examination, presence of progressive smouldering	No	No	
<b>Ignitability Performance (Yes/No)</b>			
Unsafe escalating combustion	No	No	
Test assembly consumed	No	No	
Flames to extremities	No	No	
Flames through thickness	No	No	
Flames longer than 120 seconds	No	No	
Ignition / Non Ignition ( I/NI )	NI	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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TESTING • CERTIFICATION • AUDITING

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**Kvadrat A/S**

**Comments**

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

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

The overall uncertainty budget for both BS EN 1021: Part 1 and 2:2014 is as follows:-

Timings:  $\pm 2$  seconds.

Reported by:.....  
B Bland  
Laboratory Technician

Countersigned By:.....  
P Doherty  
Manager

Enquiries concerning this report should be addressed to Customer Services.



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