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Date: 11 November 2019

Our Ref: 23/56966-3-2
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: 01 November 2019

Date of Test Start: 11 November 2019

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

Zero/600703

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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Sample was identified as follows:

Zero/600703

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 25m^3 and 18°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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Requirements (continued)

Flaming Criteria

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

Results

	Cigarette			Comments
	1	2	3 ¹	
Smouldering Criteria (Yes/No)				
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		
Ignitability Performance (Yes/No)				
Occurrence of flames	No	No		
Ignition / Non Ignition (I/NI)	NI	NI		

¹ 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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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 25m^3 and 18°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

- 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.

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Requirements (Continued)

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.

Results

	Match Flame Equivalent		Comments
	1	2	
Smouldering Criteria (Yes/No)			
Unsafe escalating combustion	Yes	Yes	
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	
Ignitability Performance (Yes/No)			
Unsafe escalating combustion	Yes	Yes	
Test assembly consumed	No	No	
Flames to extremities	Yes	Yes	
Flames through thickness	No	No	
Flames longer than 120 seconds	Yes	Yes	
Ignition / Non Ignition (I/NI)	I	I	

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.



TESTING • CERTIFICATION • AUDITING

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Comments

An I designation indicates that the sample does not meet 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: ± 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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