



Confidential Report

Our Ref: 55831-1-4



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



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Date: 17 December 2018

Our Ref: 55831-1-4
Your Ref: -

Page: 1 of 5

Client: Kvadrat A/S
Lundbergsvej 10
8400 Ebeltoft
Denmark.

Job Title: Fire Test on One Sample of Fabric

Client's Order No: -

Date of Receipt: 10 December 2018

Description of Sample(s): Atom, stated to be 90% new wool, 8% nylon, 2% polyester worsted

Work Requested: We were asked to make the following test(s):
BS 5852 : 2006 (2011) Ignition Source 3

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



1066

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Date: 17 December 2018

Our Ref: 55831-1-4
Your Ref: -

Page: 2 of 5

Client: Kvadrat A/S

FIRE TESTS ACCORDING TO BS 5852:2006 (2011)

Methods of test for assessment of the ignitability of upholstered seating by smouldering and flaming ignition sources

Date of Test: 17 December 2018

Pre-Treatment

The material was subjected to the water soak procedure according to BS 5852: Annex E: 2006 (2011).

Conditioning

Immediately prior to testing the sample was placed in indoor ambient conditions for 72 hours and then conditioned in a standard atmosphere of $20 \pm 5^\circ\text{C}$ temperature and $50 \pm 20\%$ relative humidity for at least 16 hours.

The sample was tested in a room of volume 25m^3 and 19°C

Procedure

The test was carried out in accordance with BS 5852:2006. The sponsor sampled the material and the specimens were cut from the sample received to the dimensions set out in the standard.

The specimen of fabric was mounted over fillings of combustion modified high resilience foam of density about 36 kg/m^3 .

The test was made using ignition source 3 in accordance with Section 11 'Methods of test for the ignitability of upholstery composites' and pass classifications were assigned for each ignition source if the performance requirements stated below were met.



1066



Date: 17 December 2018

Our Ref: 55831-1-4
 Your Ref: -

Page: 3 of 5

Client: Kvadrat A/S

Requirements

Ignition Source	Maximum duration allowed for progressive smouldering	Maximum duration allowed for flaming
2 3	15 min after removal of burner tube	120 seconds after removal of burner tube
4 5	60 minutes after ignition of wood crib	10 minutes after ignition of wood crib
6 7	60 minutes after ignition of wood crib	13 minutes after ignition of wood crib

Failure also occurs if:

- smouldering or flaming necessitates forcible extinction due to escalating combustion behaviour so it is unsafe to continue
- flaming or smouldering essentially consumes the specimen within the test duration
- smouldering reaches the extremities of the specimen, that is to either side or to the full thickness of the filling
- flaming reaches the extremities of the specimen other than the top of the vertical part of the test specimen
- flaming passes through the full thickness of the specimen within the test duration
- any specimen that on final examination shows evidence of charring, within the filling 100 mm from the nearest part of the original position of the source
- any debris that causes an isolated floor fire that does not meet the requirements stated in the above table



1066



Date: 17 December 2018

Our Ref: 55831-1-4
 Your Ref: -

Page: 4 of 5

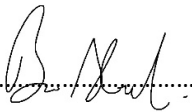
Client: Kvadrat A/S

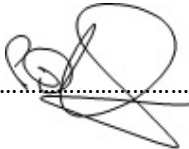
Results

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

	Source 3	
	(Top)	
Time of ignition(s)	6	7
Time of Flame Extinction(s)	28	21
Time of Smoke Extinction(s)	44	44
Time of cover split(s)	50	49
Damage on seat width (mm)	20	20
Damage on seat length (mm)	60	65
Damage on seat depth (mm)	0	0
Damage on back width (mm)	290	290
Damage on back length (mm)	70	70
Damage on back depth (mm)	20	20
Melting (Yes or No)	No	No
Dripping (Yes or No)	No	No
Charring (Yes or No)	Yes	Yes
Other Phenomena		
Pass/Fail	Non ignition	Non ignition

The results indicate the sample meets the performance requirements for source 3.
 This report relates only to the samples submitted and as described in the report.

Reported by: 
 B Bland
 Lab Technician

Countersigned By: 
 P Doherty
 Manager

Enquiries concerning this report should be addressed to Customer Services



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Page: 5 of 5

Uncertainty Budget - Annex

The overall uncertainty budget for both BS 5852:2006 (2011) is as follows:-

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



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