



**FIRE
TECHNOLOGY
SERVICES**

Confidential Report

Our Ref: 27/03013A/01/14

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

**Fire Technology Services
A division of BTTG T & C Ltd
Wira House, West Park Ring Road,
Leeds, LS16 6QL**



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Tel No: +44 (0)113 25919969 Fax No: +44 (0)113 2780306



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SERVICES

BTTG Testing & Certification Ltd.
Wira House
West Park Ring Road
Leeds, LS16 6QL
England

Tel: +44 (0)113 259 1999
Fax: +44 (0)113 278 0306
Web: <http://www.bttg.co.uk>
Email: CSLeeds@bttg.co.uk

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Client: Kvadrat A/S
Lundbergsvej 10
8400 Ebeltoft
Denmark

Job Title: **Fire Test on One Sample of Fabric**

Clients Order Ref: ---

Date of Receipt: 02 January 2014

Description of Sample: One sample of fabric, referenced: **Matrix, 100% Trevira CS.**

Work Requested: Fire Technology Services were requested to carry out a fire test on the sample supplied to BS 5852 Part 2 Source 5.





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**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: 09/01/2014

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 25°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 50kg/m^3 .

The test was made using ignition source 5 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.





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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



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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 5	
	(Top)	
Time of ignition(s)	69	72
Time of Flame Extinction(s)	282	257
Time of Smoke Extinction(s)	423	487
Time of cover split(s)	36	30
Damage on seat width (mm)	130	120
Damage on seat length (mm)	90	100
Damage on seat depth (mm)	42	40
Damage on back width (mm)	80	95
Damage on back length (mm)	315	330
Damage on back depth (mm)	30	34
Melting (Yes or No)	Yes	Yes
Dripping (Yes or No)	Yes	Yes
Charring (Yes or No)	Yes	Yes
Other Phenomena		
Pass/Fail	Pass	Pass





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Comment

The results indicate that the above sample met the performance requirements for source 5.

An estimation of uncertainty of measurement has not been taken into account when making a judgement to any pass/fail criteria.

Reported by:..... *B. Marsden* B Marsden (Mrs), Fire Technician

Countersigned by:..... *[Signature]* P Doherty, Operational Head

Enquiries concerning this report should be addressed to Customer Services.

