



**FIRE
TECHNOLOGY
SERVICES**

Confidential Report

Our Ref: 27/02862B/07/13

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**



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



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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

30 July 2013

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Client: Kvadrat A/S
Lundbergsvej 10
8400 Ebeltøft
Denmark

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

Clients Order Ref: --

Date of Receipt: 12 July 2013

Description of Sample: One sample of fabric, referenced: **Pilot, 82% new wool, 10% polyester, 8% polyamide.**

Work Requested: Fire Technology Services were requested to carry out a fire test on the sample supplied to BS EN 1021 Parts 1 & 2.





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Kvadrat A/S

FIRE TESTS ACCORDING TO BS EN 1021-1 2006

Assessment of the ignitability of upholstered furniture. Part I. Ignition Source : Smouldering cigarette. (BS 5852:1990 Section 4. As amended 1994) (ISO 8191-1987 modified)

Date of Test: 29/07/13

Conditioning

The sample was water-soaked in accordance with this standard and Immediately prior to testing 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 20°C .

Procedure

The test was carried out in accordance with BS EN 1021-1. The sponsor sampled the material and the specimens were cut from the sample received to the dimensions set out in the standard.

The specimens were mounted over fillings of standard non-FR polyurethane foam of density about $22\text{Kg}/\text{m}^3$.

Tests were made using ignition source 0 in accordance with paragraph 9 of the above standard.

Requirements

The specimens shall not:-

- a) display escalating combustion requiring active extinction.
- b) smoulder or burn until it is essentially consumed within the test duration.
- c) smoulder or burn 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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Kvadrat A/S

Results

	Cigarette		Comments
	1	2	
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	
More than 100mm from source	No	No	
Ignitability Performance (Yes/No)			
Unsafe escalating combustion	N/A	N/A	
Test assembly consumed	N/A	N/A	
Flames to extremities	N/A	N/A	
Flames through thickness	N/A	N/A	
Ignition / Non Ignition (I/NI)	NI	NI	

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

A NI designation indicates that the sample met the performance requirements.





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Kvadrat A/S

FIRE TESTS ACCORDING TO BS EN 1021-2 2006

Assessment of the ignitability of upholstered furniture. Part 2. Ignition Source : Match flame equivalent. (BS 5852:1990 Section 4. As amended 1994) (ISO 8191-2 1988 modified)

Date of Test: 29/07/13

Conditioning

The sample was water-soaked in accordance with this standard and immediately prior to testing 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 20°C .

Procedure

The test was carried out in accordance with BS EN 1021-2. The sponsor sampled the material and the specimens were cut from the sample received to the dimensions set out in the standard.

The specimens were mounted over fillings of standard non-FR polyurethane foam of density about $22\text{Kg}/\text{m}^3$.

Tests were made using ignition source 1 in accordance with paragraph 9 of the above standard.

Requirements

The specimens shall not:-

- a) display escalating combustion requiring active extinction.
- b) smoulder or burn until it is essentially consumed within the test duration.
- c) smoulder or burn 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.
- f) burn for more than 120s after removal of the burner tube.





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Kvadrat A/S

Results

	Match Flame Equivalent		Comments
	1	2	
Smouldering Criteria (Yes/No)			
Unsafe escalating combustion	N/A	N/A	
Test assembly consumed	N/A	N/A	
Smoulders to extremities	N/A	N/A	
Smoulders through thickness	N/A	N/A	
Smoulders more than 1 hour	N/A	N/A	
More than 100mm from source	N/A	N/A	
Ignitability Performance (Yes/No)			
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	

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

A NI designation indicates that the sample met the performance requirements.

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: *P Doherty* P Doherty, Operational Head

Enquiries concerning this report should be addressed to Customer Services.

