



FIRE TECHNOLOGY SERVICES

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Our Ref: 27/01451B/10/08
Your Ref:
Order No:

20 October 2008
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Client: Kvadrat A/S
Lundbergsvej 10
8400 Ebeltoft
Denmark

Job Title: **Fire Test**

Material Received: 2 October 2008

Description of Sample: One sample of fabric, referenced: **Layers Garden/Layers Park/Layers Vineyard Small/Layers Vineyard Large 94% new wool, 3% nylon, 1% polyester.**

Brief: Fire Technology Services were requested to carry out a fire test on the sample supplied to EN 1021 1/2.

UKAS Accreditation: Our Laboratories are UKAS accredited. However, it should be noted that tests marked * are not UKAS accredited in this report. They are not included in the UKAS Accreditation Schedule for our laboratory, either due to the work not conforming fully to the standard (e.g. reduced number of specimens) or to it being outside the scope of our accreditation, or subcontracted.

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





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: 17/10/08

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 25°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.





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	No	No	
Test assembly consumed	No	No	
Flames to extremities	No	No	
Flames through thickness	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.



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: 17/10/08

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 25°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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Results

	Match Flame Equivalent		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	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.

The information contained on page no's 1/2 of this certificate is hereby certified to be a correct statement of the tests and investigations carried out by the FTS on the materials referred to.

Signed 23. Marsden Date 20/10/08
 Mrs. B. Marsden
 Fire Technician

Reported By M. P. Doherty Date 20.10.08
 Mr P Doherty
 Operational Head

