

TEXTILE LABORATORY SERVICES LIMITED

P.O. Box 50, Wharfebank Business Centre, Ilkley Road, OTLEY, LS21 3JP, United Kingdom

Tel: +44 (0)1943 850967 Fax: +44 (0)1943 850965 Email: info@tls-ltd.demon.co.uk

Regd. Office: 3 Victoria Road, Guiseley, England - No.1966147



TEST CERTIFICATE

32638/1-1

Testing to Specification BS 7176 : 2007 Resistance to Ignition of Upholstered Furniture for non-domestic seating by testing composites using BS EN 1021 : 2006 Furniture - Assessment of the ignitability of upholstered furniture Parts 1 and 2

SAMPLE INFORMATION

Client

Ab Ludvig Svensson
Bangatan 8
SE-511 82 Kinna
SWEDEN.

Fabric Reference

Brink, stated to be 85% wool, 15% polyamide

Descriptions are information supplied by the client

Dimensions (approx) 500cm by 150cm full width

Sample Received 13/6/2013

PRE-TREATMENT

The material was subjected to a water soak as required by Clause 7.1 and Annex D of BS EN 1021 : 2006

CONDITIONING

The materials for testing to Source 0 and 1 were conditioned and tested in the environments specified in Clause 7 of BS EN 1021 : 2006.

TESTING and RESULTS

Test results relate only to the sample tested.

1. Testing to BS EN 1021.1 : 2006 - Source 0 - Cigarette

Foam used: The sample was tested over combustion modified polyurethane foam with a density of approximately 36kg/m³, reference SB36/140

| Specimen no | 1 | 2 |
|--|----------------|----------------|
| Time to ignition (min) | Did not ignite | Did not ignite |
| Duration of flaming | 0 | 0 |
| Duration of smouldering from application (min) | 27 | 27 |
| Time to cover split (min) | Did not split | Did not split |
| Melting | No | No |
| Dripping | No | No |
| Charring | Yes | Yes |
| Max char distance from source (mm) | Negligible | Negligible |



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| Specimen no | 1 | 2 |
|---|----|----|
| Smouldering criteria (Y/N) | | |
| Unsafe escalating combustion | No | No |
| Testing assembly consumed | No | No |
| Smoulders to extremities | No | No |
| Smoulders through thickness | No | No |
| Smoulders more than 1 hour | No | No |
| Char >100mm from source | No | No |
| Progressive smouldering ignition | No | No |
| Flaming criteria | | |
| Escalating flaming combustion | No | No |
| Testing assembly consumed | No | No |
| Flames to extremities | No | No |
| Flames through thickness | No | No |
| Progressive flaming ignition | No | No |
| Progressive smouldering on final inspection | No | No |

Any "Yes" in smouldering or flaming criteria means Ignition

Non-ignition

Non-ignition

Cigarette test RESULT

Pass

2. Testing to BS EN 1021.2 : 2006 - Source 1 - Butane Flame

Foam used: The sample was tested over combustion modified polyurethane foam with a density of approximately 36kg/m³, reference SB36/140

| Specimen no | 1 | 2 |
|---------------------------------------|---------------|---------------|
| Time to ignition from application (s) | 12 | 10 |
| Duration of flaming from removal (s) | 0 | 0 |
| Duration of smouldering from removal | 8 | 9 |
| Time of cover split (s) | Did not split | Did not split |
| Melting | Yes | Yes |
| Dripping | No | No |
| Charring | Yes | Yes |
| Smouldering criteria (Y/N) | | |
| Unsafe escalating combustion | No | No |
| Testing assembly consumed | No | No |
| Smoulders to extremities | No | No |
| Smoulders through thickness | No | No |
| Smoulders more than 1 hour | No | No |
| Char >100mm from source | No | No |



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| Specimen no | 1 | 2 |
|-------------------------------|----|----|
| Flaming criteria | | |
| Visible flames after 120 s | No | No |
| Escalating flaming combustion | No | No |
| Testing assembly consumed | No | No |
| Flames to extremities | No | No |
| Flames through thickness | No | No |

Any "Yes" in smouldering or flaming criteria means Fail

Non-ignition

Non-ignition

Match test RESULT

Pass


CONCLUSION

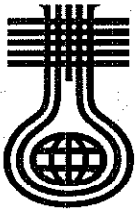
The combination of materials complies with BS 7176:2007 for Low Hazard

The test results relate only to the ignitability of the combination of upholstery composites under the particular conditions of test stated (BS EN 1021-1 : 1994 and BS EN 1021-2 : 1994); they are not intended as a means of assessing the full potential fire hazard of the materials or products in use.

Signed:.....

J. M. Brown C Chem MRSC C Text FTI
Managing Director & Authorised Signatory

Checked by:.....



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TEST CERTIFICATE

32638/1-2

SAMPLE INFORMATION

Client **Ab Ludvig Svensson**
Bangatan 8
SE-511 82 Kinna
SWEDEN.

Fabric Reference **Brink, stated to be 85% wool, 15% polyamide**
Descriptions are information
supplied by the client

Dimensions (approx) **500cm by 150cm full width**
Sample received **13/6/2013**

Testing to Clause 11 of BS 5852 : 2006 Assessment of the ignitability of upholstered seating by Smouldering and Flaming sources - Source 5 (Crib 5)

PRE-TREATMENT

The material was subjected to a water soak according to Annex E of BS 5852 : 2006

CONDITIONING

All materials used were conditioned and tested in the environments specified in Clause 10.1 of BS 5852 : 2006

TESTING

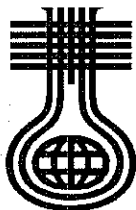
Test results relate only to the sample tested. The material was tested according to **BS 5852 : 2006 Methods of test for the ignitability of upholstered composites for seating by flaming sources using Source 5 (Crib 5)**

Foam used:

The sample was tested over combustion modified polyurethane foam with a density of approximately 36kg/m³, reference SB36/140

It should be noted that the results of BS 5852 ; Part 2 : 1982 relate only to the ignitability of the combination of materials under test; they are not intended as a means of assessing the full potential fire hazard of the materials in use

The test results are shown in the tables below:



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| Specimen no | 1 | 2 |
|---|-----------|-----------|
| Duration of: | | |
| Ignition source | 7'50" | 7'36" |
| Flames | 5'43" | 5'12" |
| Smoke | 7'50" | 7'36" |
| Time from start of: | | |
| Cover split | 1'22 | 1'16" |
| Extinction | 7'50" | 7'36" |
| Melting | Yes | Yes |
| Dripping | No | No |
| Charring | Yes | Yes |
| Progressive smouldering on final inspection | No | No |
| Extent of damage (mm) | | |
| Horizontal component | | |
| Width - left crib edge to left edge of burn | 70 | 75 |
| Width - right crib edge to right edge of burn | 70 | 75 |
| Width - front crib edge to front edge of burn | 80 | 70 |
| Depth | 60 | 65 |
| Vertical component | | |
| Width - left crib edge to left edge of burn | 75 | 75 |
| Width - right crib edge to right edge of burn | 75 | 75 |
| Depth | 73 | 72 |
| Max char distance | 80 | 75 |
| Smouldering criteria | | |
| Unsafe escalating combustion | No | No |
| Testing assembly consumed | No | No |
| Smoulders to extremities | No | No |
| Smoulders through thickness | No | No |
| Smoulders more than 1 hour | No | No |
| Char more than 100mm from source edge | No | No |



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| Specimen no | 1 | 2 |
|---|---------------------|---------------------|
| Flaming criteria | | |
| Visible flames after 10 mins | No | No |
| Escalating flaming combustion | No | No |
| Testing assembly consumed | No | No |
| Flames to extremities | No | No |
| Flames through thickness | No | No |
| Progressive smouldering on final inspection | No | No |
| (All distance criteria exclude vertical) | | |
| Any "Yes" in smouldering or flaming criteria = Ignition | | |
| Specimen result (Ignition or Non-ignition) | Non-Ignition | Non-Ignition |

CONCLUSION

Since both specimens show Non-ignition the combination of materials is designated NI/5 (ie PASS)

Signed:.....

J. M. Brown C Chem MRSC C Text FTI
Managing Director & Authorised Signatory

Checked by:.....