



Shirley  
Technologies  
Limited

## Confidential Report

**Our Ref: 29/01473B/10/15**

Shirley Technologies Limited. Registered Office :  
Wira House, West Park Ring Road, Leeds, LS16 6QL.  
A company registered in England & Wales with company number 04669651.  
VAT Number GB 816764800.  
The supply of all goods and services is subject to our standard terms of  
business, copies of which are available on request.  
Our laboratories are accredited to EN ISO/IEC 17025





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26 November 2015

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Our Ref: 29/01473B/10/15  
Your Ref: LH/lh

Client: Kvadrat A/S

Address: Lundbergsvej 10  
8400 Ebeltoft  
Denmark

Job Title: Various Tests on One Sample of Fabric

Client's Order Ref:

Date of Receipt: 20 October 2015

Description of Sample(s): One sample of woven upholstery fabric, referenced by the Client:-

**Molly 2 170, 100% new wool**

Work Requested: abrasion resistance to EN ISO 12947  
pilling resistance to EN ISO 12945-2

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Testing atmosphere: Unless otherwise specified the sample(s) has been conditioned and tested, where appropriate, in the standard atmosphere for conditioning and testing textiles (BS EN ISO 139:2005 + A1:2011) of 65±4% r.h. and 20±2°C.

**Determination of the Abrasion Resistance of Fabrics by the Martindale Method – Determination of Specimen Breakdown**

Date of test start: 02.11.15. Four specimens from the sample were tested, under a nominal pressure of 12 kPa(795±7g) in accordance with BS EN ISO 12947-2:1998, using a Martindale abrasion tester as described in BS EN ISO 12947-1:1998. Specimen breakdown (end point) was reached when two separate threads had completely broken. The change of shade of the test specimens was not assessed. Tested specimens are enclosed.

	<u>Mean no. of rubs to end point</u>
	83,000
	62,000
	73,000
	<u>83,000</u>
Mean:	75,500

**Determination of Fabric Propensity to Surface Fuzzing and Pilling–Modified Martindale Method #**

Specimens from the sample were tested on a modified Martindale Abrasion Machine, using wool abradant fabric and a loading weight of 415 ±2g as stated in Annex A, Table A.1, following the Category 1 procedure for upholstery fabrics described in BS EN ISO 12945-2:2000.

The specimens were tested to a total of 5000 rubs, visually assessed at intervals and rated according to Table 1 of the Standard, summarised as follows:-

- 5 - no change
- 4 - slight surface fuzzing and/or partially formed pills
- 3 - moderate surface fuzzing and/or moderate pilling
- 2 - distinct surface fuzzing and/or distinct pilling
- 1 - dense surface fuzzing and/or severe pilling

<u>Number of rubs</u>	<u>Pilling grade</u>	<u>Description</u>
500	4	pilling and fuzzing
1000	4	pilling and fuzzing
2000	3-4	pilling and fuzzing
5000	4	pilling and fuzzing

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Reported by:

..... *L.I. Butler* .....

L I Butler (Mrs)  
Senior Technician - Textiles

Countersigned by:

..... *J. Bullers* .....

J M Bullers (Mrs)  
Operational Head – Textiles

# test subcontracted.

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