



Shirley  
Technologies  
Limited

## Confidential Report

**Our Ref: 29/02329B/01/18**

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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6 February 2018

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Our Ref: 29/02329B/01/18  
Your Ref: LH/lh

Client: Kvadrat A/S

Address: Lundbergsvej 10  
8400 Ebeltoft  
Denmark

Job Title: Modified Martindale Pilling Test on One Sample of Fabric

Client's Order Ref:

Date of Receipt: 11 January 2018

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

**Melange Nap, 111, stated by the Client to be 97% new wool,  
3% nylon, worsted**

Work Requested: Modified Martindale pilling test 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 Fabric Propensity to Surface Fuzzing and Pilling—Modified Martindale Method (#)**

Specimens from the sample were tested on a modified Martindale Abrasion Machine, using wool abrasant fabric and a loading weight of 415 ± 2g. The specimens were tested for 500, 1,000, 2,000, 5,000 rubs, 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 visually assessed at the required 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                   | 3-4                  | pilling and fuzzing |
| 1,000                 | 3-4                  | pilling and fuzzing |
| 2,000                 | 3-4                  | pilling and fuzzing |
| 5,000                 | 3-4                  | pilling and fuzzing |

Reported by:

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

J M Bullers (Mrs)  
Operational Head – Textiles

(#) as agreed, the test was subcontracted to a UKAS accredited laboratory; this test is on their schedule of accreditation.

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