

CONFIDENTIAL TEST REPORT

Our Ref : 21750-1
Your Ref : LH/lh

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6 September 2007

Client: Kvadrat A/S
Lundbergsvej 10
8400 Ebeltoft
Denmark

Job Title: Various Tests On One Fabric Sample

Client's order no.:
Date of receipt: 15 August 2007
Date of test start: 20 August 2007

Description of sample(s): One part width sample of woven upholstery fabric, reference:-
Tonica, 100% new wool

Work requested: Shirley Technologies Ltd. were requested to carry out an abrasion resistance test to EN ISO 12947 and a pilling test to EN ISO 12945 on the sample supplied.

UKAS Accreditation: Our Laboratories are UKAS accredited. However, it should be noted that tests marked * are not UKAS accredited in this report and 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

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

This report is incomplete without all the pages specified above, together with a copy of our standard terms of business.



Company Registered in England & Wales
Reg. Office: Shirley Technologies Ltd.,
Wira House, West Park Ring Road, Leeds LS16 6QL, UK.
The supply of all goods and services is subject to our standard terms of business,
copies of which are available on request. (<http://www.shirleytech.co.uk>).
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Abrasion Resistance Of Fabrics By The Martindale Method

Four specimens from the sample were tested, under a nominal pressure of 12 kPa (795±7g) in accordance with BS EN ISO 12947-2:1999, using a Martindale abrasion tester as described in BS EN ISO 12947-1:1999.

The reference abradant was mounted over woven backing felt and the physically significant end point assessed when at least two individual threads had broken. The change of shade of the test specimens was not assessed. The tested specimens are enclosed.

	<u>No. of rubs to end point</u>
	75,000
	83,000
	78,000
	<u>80,000</u>
mean:	79,000

Determination Of Fabric Propensity To Surface Fuzzing And To 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 fabric described in BS EN ISO 12945-2:2000.

The specimens were tested to a total of 5,000 rubs and visually assessed at intervals.

<u>Number of rubs</u>	<u>Pilling grade</u>	<u>Description</u>
500	4-5	slight surface fuzzing
1,000	4	slight surface fuzzing
2,000	4	slight surface fuzzing & partially formed pills
5,000	3-4	moderate surface fuzzing & partial pilling

(*) test subcontracted to UKAS laboratory number 1516.

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The information contained on page no's 1/3 of this certificate is hereby certified to be a correct statement of the tests and investigations carried out by Shirley Technologies Ltd. on the materials referred to.

Signed.....*L.I. Butler*..... Date *6.9.07*.....

L I Butler (Mrs)
Senior Technician - Textiles

Signed.....*Julia Bullers*..... Date *6.9.07*.....

J M Bullers (Mrs)
Operational Head - Textiles

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