

Shirley  
Technologies  
Limited

## Confidential Report

**Our Ref: 29/00291B/09/13**

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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31 October 2013

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Our Ref: 29/00291B/09/13  
Your Ref:

Client: Gudbrandsdalens Uldvarefabrik as

Address: N-2626 Lillehammer  
Norway

Job Title: Determination of Abrasion Resistance on One Sample

Client's Order Ref:

Date of Receipt: 23 September 2013

Description of Sample(s): One full width sample of woven fabric referenced by the Client:-  
**Quality 9419**

Work Requested: EN ISO 12947 abrasion

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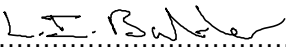
Testing atmosphere: Unless otherwise specified the sample(s) has been conditioned and tested, where appropriate, in the standard atmosphere for conditioning and testing textiles (BS EN ISO 139:2005 + A1:2011) of 65±4% r.h. and 20±2°C.

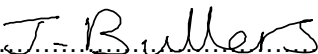
**Determination of the Abrasion Resistance of Fabrics by the Martindale Method – Determination of Specimen Breakdown**

Date of test start: 14.10.13. 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.

The reference abradant was mounted over woven backing felt and specimen breakdown (end point) was reached when two separate threads had completely 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>
37,000
48,000
39,000
<u>37,000</u>
mean: 40,500

Reported by:  L I Butler (Mrs)  
Senior Technician – Textiles

Countersigned by:  J M Bullers (Mrs)  
Operational Head – Textiles

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