



## TEST REPORT

**Client:** Gabriel  
Hjulgagervej 55  
Postbox 59  
DK-9100 Aalborg  
Denmark

**Entry No:** 103318A

**Date received:** 25/10/2018

**Client's Description:** 1 Fabric Sample Spin 61149

**Test Required:** Pilling, Tensile Strength, Tear Resistance and Seam Slippage, Colour Fastness to Dry Cleaning, Perspiration, Water, Washing, Light, Rubbing and Dimension Stability.

**Conditioning:** In accordance with BS EN ISO 139: 2005 for a minimum of 24 hours at 65+/-4%, Relative Humidity, 20+/-2°C

**Date Tests Completed:** 14/01/2019

**Pilling:** BS EN ISO 12945-2: 2000 Load 415g

	<u>Rating</u>
After 2,000 rubs	5
After 5,000 rubs	5

**Tensile Strength:** BS EN ISO 13934-1: 1999

Warp Way	860 N
Weft Way	1800 N

**Tear Resistance:** BS EN ISO 13937-3: 2000

Torn across Warp	75 N
Torn across Weft	103 N

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*This is hereby certified to be a correct return of the tests made of the items referred to herein*



Claire Saville  
Technologist  
23<sup>rd</sup> January 2019

- ❖ Unless instructed otherwise by the client sample remnants will be disposed of after 28 days.
  - ❖ Tests marked <sup>N</sup> in this certificate are not included in the UKAS Accreditation Schedule for this Laboratory.
  - ❖ Tests marked <sup>F</sup> in this certificate are performed under the Laboratory's Flexible Scope of Accreditation.
  - ❖ Tests marked <sup>S</sup> in this certificate have been subcontracted to another ISO17025 Accredited Laboratory.
  - ❖ Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
  - ❖ Uncertainty budgets for test methods contained within this report are available on request.
- This Certificate relates only to the sample received and, unless that sample has been drawn by the staff of this laboratory, or its agent, and endorsed accordingly, any application of the result to a bulk quantity or other material is entirely the responsibility of the client.



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**Seam Slippage:** BS EN ISO 13936-2: 2004

	<u>Mean Seam opening</u>
Warp Way Seam	3 mm
Weft Way Seam	2 mm

**Colour Fastness to Dry Cleaning:** BS EN ISO 105-D01: 2010

Staining on:	Acetate	5
	Cotton	5
	Nylon 6.6	5
	Polyester	5
	Acrylic	5
	Wool	5
Change in Colour		5

**Colour Fastness to Perspiration:** BS EN ISO 105-E04: 2013

Staining on:	Acid	Alkali
	Acetate	5
	Cotton	5
	Nylon 6.6	5
	Polyester	5
	Acrylic	5
	Wool	4-5
Change in Colour	5	5

**Colour Fastness to Rubbing:** BS EN ISO 105-X12: 2016<sup>F</sup>

<u>Staining</u>		<u>Dry</u>	<u>Wet</u>
	Warp Way	5	5
	Weft Way	5	5
<u>Change in Colour</u>		<u>Dry</u>	<u>Wet</u>
	Warp Way	5	5
	Weft Way	5	5

**Note:** Change in colour is not a requirement of the method but was carried out at the request of the client.

**Colour Fastness to Rubbing with Organic Solvents:** BS EN ISO 105-D02: 2016<sup>F</sup>

Staining:		<u>Tetrachloroethylene</u>	<u>White Spirit</u>
	Length Way	5	4-5
	Width Way	4-5	4-5
Change in colour:		<u>Tetrachloroethylene</u>	<u>White Spirit</u>
	Length Way	5	5
	Width Way	5	5

**Note:** Change in colour is not a requirement of the method but was carried out at the request of the client.

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**Colour Fastness to Rubbing with Foam Detergent:** BS EN ISO 105–X12: 2016<sup>F</sup>

Foam Detergent used:- Turtle Wax Interior1	<u>Detergent</u>
Staining: Warp Way	<b>5</b>
Weft Way	<b>5</b>
Change in colour: Warp Way	<b>5</b>
Weft Way	<b>5</b>

**Note:** Change in colour is not a requirement of the method but was carried out at the request of the client.

**Dimensional Stability:** BS EN ISO 5077: 2008

**Washing Procedure:** BS EN ISO 6330: 2012 Procedure 4M (40°C), Drying Procedure C Flat dry

Length	<b>-2.5 %</b>
Width	<b>-2 %</b>

**Note:** a negative result indicates shrinkage.

**Colour Fastness to Water:** BS EN ISO 105–E01: 2013

Staining on: Acetate	<b>5</b>
Cotton	<b>5</b>
Nylon 6.6	<b>5</b>
Polyester	<b>5</b>
Acrylic	<b>5</b>
Wool	<b>5</b>
Change in Colour	<b>5</b>

**Colour Fastness to Light:** BS EN ISO 105-B02: 2014 Method 2

Specimens were exposed together with Standard References numbers 1-8. By comparison with the standard references the grading was found to be:

BWS Rating  
**7**

**Colour Fastness to Washing:** BS EN ISO 105–C06: 2010 Procedure A2S at 40°C using 10 steel balls

Staining on: Acetate	<b>5</b>
Cotton	<b>5</b>
Nylon 6.6	<b>5</b>
Polyester	<b>5</b>
Acrylic	<b>5</b>
Wool	<b>5</b>
Change in Colour	<b>5</b>

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Amended Report 103318A. This Report supersedes Test report 103318. Some of the results of the testing have been removed at the request of the client.