

**TFT****(Ilkley) Ltd.****The Sidings Business Park, SKIPTON, North Yorkshire, BD23 1TB  
Phone or Fax 01756 792525**

Office: 30 Alexandra Crescent, ILKLEY, West Yorkshire, LS29 9ER, Phone or Fax 01943 603459

Reg. No. 3168606, VAT No. 659 9604 77



## TEST CERTIFICATE

**No. G20094/1A  
Amended**

### SAMPLE INFORMATION

Client	<b>Gabriel A/S Hjulmagervej 55, DK-9000 Aalborg</b>
Details supplied by the client	<b>8714 Harlequin Ecolabel col. 60999 Black</b>
Dimensions	<b>200cm by 159cm</b>
Date Received	<b>01 September 2020</b>
Date Tested	<b>02 September-23 September 2020</b>

### CONDITIONING

Unless otherwise stated, where it is required conditioning has been carried out at the standard atmosphere defined in BS EN ISO 139:2005+A1:2011, Textiles – standard atmospheres for conditioning and testing.

The samples have been conditioned for the time specified in each test standard at a temperature of  $20 \pm 2$  C and a relative humidity of  $65 \pm 4$  %. These specified ranges are reduced by the uncertainty of measurement of the data loggers. The conditions are maintained within these reduced ranges.

Note – the above test results relate to the sample received and do not in any way confer approval of the quality of manufacture of the material. It is the responsibility of the client to ensure the sample is representative of the bulk production.  
Tests marked with an \* are not UKAS Accredited, tests marked with an # are sub-contracted.

**TESTING****Abrasion - Fabric Weight \***

The fabric weight was determined to be 331 g/m<sup>2</sup>. This weight has been used to determine criteria required for the following test.

**Martindale Abrasion BS EN ISO 12947-2**

The material was conditioned and tested according to ISO 12947-2 : 1998 Determination of the abrasion resistance of fabrics Part 2, as modified by BS EN ISO 14465 : 2003+A1: 2006 Textiles – Upholstery fabrics - Specification and methods of test..

Testing was carried out with foam using a pressure of 12kPa.

The felt pads used were of a woven felt type.

Pills were not removed during the test.

The criteria for judging end point was complete breakdown of the outer surface at the client's request.

The fabric type for this test was knitted.

The specimens were inspected using a 10-fold magnification aid.

The results are summarised in the following table:

The test was terminated after 100,000 rubs without an end point being reached.

	Result
<b>Specimen 1</b>	Removed prior to breakdown at 100,000 rubs
<b>Specimen 2</b>	Removed prior to breakdown at 100,000 rubs
<b>Specimen 3</b>	Removed prior to breakdown at 100,000 rubs
<b>Specimen 4</b>	Removed prior to breakdown at 100,000 rubs

The overall result is **100,000** rubs.

**Abrasion – Assessment of Colour Change**

An assessment of the colour change was made using greyscales specified in BS 20105 : A02 at 3,000 rubs and the results are indicated in the table below:

	Grade
<b>Assessment of colour change</b>	4-5

Note – the above test results relate to the sample received and do not in any way confer approval of the quality of manufacture of the material. It is the responsibility of the client to ensure the sample is representative of the bulk production.

Tests marked with an \* are not UKAS Accredited, tests marked with an # are sub-contracted.

### Colour Fastness to Rubbing

The fabric was tested according to BS EN ISO 105 - X12 : 2016 Textiles - Tests for colour fastness – Colour fastness to rubbing. The cotton rubbing finger diameter was 16mm. The cotton rubbing fabric was assessed using grey scales.

The results are shown in the table below:

	Warp	Weft
<b>Dry</b>	4-5	4-5
<b>Wet</b>	5	5
<b>Shade Change</b>	5	5

### Tear Strength - Wing Rip

Five warp and five weft specimens were conditioned and tested according to BS EN ISO 13937-3:2000 – Textiles – Tear properties of fabrics – Part 3: Determination of tear force of wing-shaped test specimens (Single tear method).

Testing was carried out on a constant-rate-of extension (CRE) testing machine, using a 500N load cell, and the results were calculated electronically.

The results are shown in the table below:

Specimen	Mean peak tear force in Newtons (Rounded to 2 significant figures)	
	Warp	Weft
1	96	83
2	101	93
3	78	91
4	76	79
5	84	65
<b>Mean result</b>	<b>87</b>	<b>82</b>

Note – the above test results relate to the sample received and do not in any way confer approval of the quality of manufacture of the material. It is the responsibility of the client to ensure the sample is representative of the bulk production.  
Tests marked with an \* are not UKAS Accredited, tests marked with an # are sub-contracted.

### Tensile Properties of Fabrics - Strip Method

A minimum of five warp and five weft specimens were conditioned and tested according to BS EN ISO 13934-1 : 2013 Textiles – Tensile properties of fabrics - Part 1 : Determination of maximum force and elongation at maximum force using the strip method.

Testing was carried out on a constant-rate-of extension (CRE) testing machine, with a gauge length of 200 mm and with a rate of extension of 100 mm/min.

A pretension of 5 N was applied prior to testing.

A 'jaw break' is defined as a failure within 5mm of a jaw. Where five normal results are recorded without including any jaw breaks that lie outside of the normal results, the results are summarised in the table below:

	Warp	Weft
Mean Tensile Strength N	650	920
Mean Elongation %	40	42
CV of Tensile Strength %	4.4	2.8
CV of Elongation %	1.2	2.4

### Colour Fastness to Light – Method 2#

The fabric was tested according to ISO 105 - B02 : 2014 Textiles - Tests for colour fastness – Colour fastness to artificial light : Xenon arc fading lamp test,

The results are shown in the table below:

	Grade	Result
Change of shade	6+	Satisfactory

### AUTHORISATION



K Lunn  
Laboratory Manager

END OF REPORT

Note – the above test results relate to the sample received and do not in any way confer approval of the quality of manufacture of the material. It is the responsibility of the client to ensure the sample is representative of the bulk production.  
Tests marked with an \* are not UKAS Accredited, tests marked with an # are sub-contracted.