



**Shirley**

**Confidential Report**

**Our Ref: E-034043**

Date: 20 March 2024  
Our Ref: E-034043  
Your Ref: P/Order 83A25777  
Client: Camira Fabrics Limited  
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**Client:** Camira Fabrics Limited

**Address:** The Watermill  
Wheatley Park  
Mirfield  
West Yorkshire  
WF14 8HE  
FAO Luke Russell

**Job Title:** Colour Fastness of Fabric to Artificial Weathering

**Clients Order Ref:** P/Order 83A25777

**Date of Receipt:** 31 January 2024

**Description of Sample(s):** Sample of fabric, individually referenced as follows:

- Sample Name: Layer
- Batch: 533397
- Colour: Deep Dive

**Work Requested:** Determination of the colour fastness of the sample to artificial weathering, testing to a target of Grade 7

*This report relates only to the items tested. Enquiries concerning this report should be addressed to Customer Services*

*Where required to make a judgement to any pass/fail criteria, an estimation of uncertainty of measurement has been taken into account. Under our Policy we have used a non-binary decision rule. See our decision rules Policy (<http://www.bttg.co.uk/decision-rules-policy>) for further information*

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## LABORATORY TESTING AND RESULTS

**Testing Atmosphere:** Unless otherwise specified, where appropriate, the sample has been conditioned and tested in the standard atmosphere for conditioning and testing textiles (BS EN ISO 139:2005) of  $65\pm4\%$  RH and  $20\pm2^\circ\text{C}$ .

### Colour Fastness to Artificial Weathering (BSENISO 105: B04: 1997)

This test works by exposure of the sample in conjunction with 8 blue wool references, each of varying light fastness properties where each successive higher numbered reference is twice as light resistant as its predecessor. The weathering result is the number of the blue scale whose change most resembles that of the sample after exposure to accelerated weathering conditions using a xenon light source to simulate natural daylight, including elevated heat and humidity levels and direct water spraying. During the exposure the blue wool references are protected from direct water spray, whereas the test specimen is sprayed with ion-free water for a period of 1 minute in every 30 minute cycle. The surface temperature of the test specimens is maintained at  $\leq 20^\circ\text{C}$  lower than the chamber temperature, which is itself maintained at a maximum of  $40^\circ\text{C}$ .

In this particular case, as requested by the client the samples were exposed in accordance with Method 2 of the standard, wherein a grey scale colour change equivalent to grade 4 is achieved on the blue wool reference taken as the target result (in this case blue wool No.7). The fading of the test sample is compared to the fading of the blue wool references at these points.

Blue scale rating of colour change at BWS No.7 endpoint	Grade 7
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Shirley® observed that the exposed sample did not exhibit any detrimental effect on surface morphology or gloss.

Reported by:

Ian Strudwick  
Technical Textiles Specialist

Countersigned by:

Jennie Brewster  
Section Leader