



RELIABLE ANALYSIS INC.

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REPORT DATE 02/23/16
TOTAL PAGE(S) NUMBER 1/5

REPORT FOR

Supplied by Vyva Fabrics

Work Requested

Perform Xenon Light Resistance Test on three sets of samples submitted to 200 h in accordance with AATCC Method 16-3 (2004), 1.1 W/m² at 420 nm, 63±2°C black panel temperature and continuous light irradiation. The color was evaluated on the samples as received and after 200 h of exposure.

Sample Description

Three sets of samples, received for testing on Feb 10, 2016, were identified as:

- Sample ID:
1. Durango – PON 1126544038 SAP #523610
 2. Venue Shitake – PON 1152146 SAP #514970, 007-CP-050
 3. Colorguard All Spice – PON 1152147 SAP #518760, 007-CP-013

Work Performed

The samples were conditioned for a minimum of 24 hours at the standard laboratory conditions of 23 ± 2°C and 50 ± 5 % R.H. prior to testing. They were then exposed to 200 h in a Xenon Arc Weather-Ometer per 1.1 W/m² at 420 nm, 63±2°C black panel temperature and continuous light irradiation. The color measurements were performed on the samples as received and after 200 h of exposure. The color changes were listed as "difference" and "Delta" as shown in the Test Results section. The AATCC Grey Scale rating⁽¹⁾ is listed in the Test Results section also.

Test Results

AATCC Method 16-3 (2004)

Color Fastness to Light – Option 3 (1.1 W/m² at 420 nm, 63±2°C black panel temperature and continuous light irradiation. 200 h)

Requirement: Gray scale⁽¹⁾ Grade 4 min.

⁽¹⁾ On a Grade of 1-5, "1" means severe color change, "5" means little or no color change.



Test Results (continued)

Color Fastness to Light – Option 3 (1.1 W/m² at 420 nm, 63±2°C black panel temperature and continuous light irradiation. 200 h)

Sample ID	DL*	Da*	Db*	DC*	DH*	DE*
1. Durango – PON 1126544038 SAP #523610						
Specimen 1	0.21	-0.24	0.02	-0.05	0.23	0.32
Evaluation: Gray scale Grade 5, met requirement.						
Specimen 2	0.19	-0.24	0.06	-0.01	0.24	0.31
Evaluation: Gray scale Grade 5, met requirement.						
Specimen 3	0.21	-0.24	0.07	0.00	0.25	0.33
Evaluation: Gray scale Grade 5, met requirement.						
2. Venue Shitake – PON 1152146 SAP #514970						
Specimen 1	0.10	-0.12	0.02	-0.02	0.12	0.16
Evaluation: Gray scale Grade 5, met requirement.						
Specimen 2	0.00	-0.07	-0.05	-0.07	0.05	0.09
Evaluation: Gray scale Grade 5, met requirement.						
Specimen 3	0.04	-0.08	0.10	0.07	0.11	0.14
Evaluation: Gray scale Grade 5, met requirement.						
3. Colorguard All Spice – PON 1152147 SAP #518760						
Specimen 1	0.10	0.01	-0.07	-0.05	-0.05	0.12
Evaluation: Gray scale Grade 5, met requirement.						
Specimen 2	0.05	0.03	0.06	0.06	0.02	0.08
Evaluation: Gray scale Grade 5, met requirement.						
Specimen 3	0.09	-0.01	-0.13	-0.11	-0.08	0.16
Evaluation: Gray scale Grade 5, met requirement.						

Test Equipment

1. E-222, Atlas Weather-Ometer (Model Ci65A, S/N: CB-10596), Calibration Exp: October 2016.
2. E-651, Color-EYE Spectrocolorimeter, Calibration Exp: Sep. 2016.



Sample Disposition

The tested samples were being returned with this report for your further evaluation.

Reliable Analysis, Inc.

A handwritten signature in black ink that reads 'Scott Etzel'.

Scott Etzel

Technical Manager-Materials

Z/Li Li/2015



Appendix: Photographs of Specimens Per-Test and Post-Test:





Appendix: Photographs of Specimens Per-Test and Post-Test:

