TEST REPORT

LAB NO.: **(6222)349-0105 REVISED-1**
DATE IN: DEC. 15, 2022
DATE OUT: DEC. 27, 2022
MOD. DATE: -
PAGE: 1 OF 5
WORKING DAYS: 8 (ADD LIGHT AND STAIN REMOVAL RESULTS ON JAN. 10, 2023.)

TO: TAIWAN AXROMA TECHNICAL TEXTILE CO., LTD.

PURPOSE OF TEST: To evaluate the submitted sample in the test requested by the client only.

OVERALL RATING: DATA

SAMPLE DESCRIPTION:

Item Description:	1. 18T319-21 SDP –A sample 2. 18B386-15B (PP)- B sample
Style No.:	-
P.O No.:	-
Sources/Vendor:	-
Manufacturer:	-
Orig. Of Country:	-
Size:	-
Color:	-

TEST RESULTS:

Evaluation	Criteria	Results / Rating
Water Repellency	Prior to testing, weigh a piece of blotter paper per AATCC 35. Expose cushion to 5 minutes of rain from a rain simulator per AATCC 35 with the piece of blotter paper placed under the cushion. After 5 minutes, determine the weight of the blotter paper that was placed under the cushion. Calculate the percent weight gain of the blotter. $Weight\ Gain = \frac{W_{wet} - W_{dry}}{W_{dry}}$ W_{wet} = Weight of the blotter paper after rain test W_{dry} = Weight of the dry blotter paper • Style Selections items shall have a maximum weight change of 190%. • allen + roth & Origin 21 items shall have a maximum weight change of 180%.	Per applicant request: report actual data only A: 204.4% B: 6.2%

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Evaluation	Criteria	Results / Rating
Colorfastness to Fabric Wet & Dry Crocking Required	Using a cushion from the chair, remove the fabric from the cushion. Determine the color change grade of the cushion fabric to both wet and dry cocking per AATCC 8/116. • Style Selections items shall have a minimum grade of 4.5 (per AATCC) for all crocking tests. • allen + roth & Origin 21 items shall have a minimum grade of 4.5 (per AATCC) for all crocking tests.	Per applicant request: report actual data only A: Dry: CS: Grade 4.5, Wet: CS: Grade 4.5 B: Dry: CS: Grade 4.5, Wet: CS: Grade 4.5
Colorfastness to Fabric to Static Wetting	Using a cushion from the chair, remove the fabric from the cushion. Determine the color change grade of the cushion fabric to static wetting crocking per AATCC 107. • Style Selections items shall have a minimum grade of 4.5 (per AATCC) for all tests. • allen + roth & Origin 21 items shall have a minimum grade of 5.0 (per AATCC) for multi-fiber and a minimum grade of 4.5 for all other tests.	Per applicant request: report actual data only A: CC: Grade 4.5 CS: Grade 4.5/4.5/4.5/4.5/4.5/4.5 B: CC: Grade 4.5 CS: Grade 4.5/4.5/4.5/4.5/4.5/4.5
Colorfastness to Light	Using a cushion from the chair, remove the fabric from the cushion and record the L*a*b* color coordinates. Expose fabric sample to 240 hours of UV Light per AATCC 16 option 3. After exposure, determine the color coordinates of the exposed fabric. Determine change, ΔE, in color from the two sets of coordinates. • Style Selections items shall not exceed a maximum color change (ΔE) of 1.0. • allen + roth & Origin 21 items shall not exceed a maximum color change ΔE) of 1.0.	Per applicant request: report actual data only A: CC: 4.5 B: CC: 4.5 (Evaluated by gray scale)
Tensile Strength of Fabric	Using a cushion from the chair, remove the fabric from the cushion. Determine the strength of the fabric in both warp and weft directions per ASTM D5034. • Style Selections items shall have a minimum tensile strength of 200 lbf in the warp direction and of 150 lbf in the weft direction. • allen + roth & Origin 21 items shall have a minimum tensile strength of 220 lbf in the warp direction and of 180 lbf in the weft direction.	Per applicant request: report actual data only A: Warp: Over 220.0lbf Weft: 207.2lbf B: Warp: Over 220.0lbf Weft: Over 220.0lbf
Tear Strength of Fabric	Using a cushion from the chair, remove the fabric from the cushion. Determine the strength of the fabric in both warp and weft directions per ASTM D2261. • Style Selections items shall have a minimum tear strength of 20 lbf in the warp direction and of 10 lbf in the weft direction. • allen + roth & Origin 21 items shall have a minimum tear strength of 30 lbf in the warp direction and of 25 lbf in the weft direction.	Per applicant request: report actual data only A: Warp: 37.2lbf, Weft: 32.0lbf B: Warp: 28.0lbf, Weft: 26.1lbf
Seam Strength of Fabric	Using a cushion from the chair, remove the fabric from the cushion such that seam is in the center of the fabric sample. Determine the strength of the seam using ASTM D1683, with the seam aligned in the center of the sample with the seam perpendicular to the application of force. • Style Selections items shall have a minimum seam strength of 60 lbf. • allen + roth & Origin 21 items shall have a minimum seam strength of 60 lbf.	NA / -

<table>
<tr><th>Evaluation</th><th>Criteria</th><th>Results / Rating</th></tr>
<tr><td>Stain Removal</td><td>Apply three soils (red wine, yellow mustard with turmeric, and Mediterranean red clay powder facial grade mixed 1 to 1 with water) to the fabric of the cushion per AATCC 130. After 4 hours, clean soils per AATCC 130 using a cleaning solution of Dawn Ultra dish soap and room temperature water (mix in a ratio of 5 ml of standard Dawn dish soap to 95 ml of water). After cleaning, allow cushion fabric to dry completely and measure the L*a*b* color coordinates of the unsoiled area of the fabric and the coordinates of the areas where the soils were cleaned. Determine the color difference, ΔE, between the three cleaned areas and the unsoiled area.

Table 4. Color Difference Requirements after Cleaning
<table>
<tr><th rowspan="2">Brand</th><th colspan="3">Maximum Color Difference between Areas (ΔE)</th></tr>
<tr><th>Mustard Soil</th><th>Red Wine Soil</th><th>Red Clay Soil</th></tr>
<tr><td>Style Selections</td><td>4.5</td><td>2.0</td><td>2.0</td></tr>
<tr><td>allen + roth & Origin 21</td><td>3.5</td><td>2.0</td><td>2.0</td></tr>
</table>
• Style Selections items shall meet all the requirements listed in Table 4.
• allen + roth & Origin 21 items shall meet all the requirements listed in Table 4.</td><td>Per applicant request: report actual data only
A: Mustard soil: 2.0,
Red wine soil: 4.5,
Red clay soil: 4.0

B: Mustard soil: 2.0,
Red wine soil: 4.5,
Red clay soil: 2.0
(Evaluated by gray scale)</td></tr>
</table>

**Results Key:

M	Meets	NM	Does Not Meet
PASS	Pass	FAIL	Fail

Remark: BVCPS Contact information for this report.

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BUREAU VERITAS CONSUMER PRODUCTS SERVICES (H.K.) LIMITED,
TAIWAN BRANCH

CHAD HSIEH
HARDLINE OPERATION MANAGER

REMARKS:

1. This report is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our written permission.

2. Our report is limited to the test samples identified herein. The results set forth in this report are not necessarily indicative or representative of the statistical quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted.

3. Our report includes all the tests requested by you and the results thereof. You shall have thirty days from receipt of this report to request additional testing of the samples or to notify us of any errors or omissions relating to our report; provided, however, such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.


A


B