



## TEST REPORT

**CLIENT:**

Company:	Shaw Contract	Report Number:	74195D-01
Address:	PO Drawer 2128	Lab Test Number:	3021-6665
	Dalton, GA 30722-2128	Test Completion Date:	6/15/2018
		Report Date:	6/26/2018
Requested By:	Stuart Bartenfield	Page:	1 of 1

**TEST MATERIAL:**

Material Type:	Carpet				Date Received:	5/31/2018	
Material Condition:	EXCELLENT:	XXX	GOOD:	POOR:	REJECTED:		
Style#	5T261						
Style name	Belong Tile						
Roll#	T10169J						
Backing	EcoWorx						
MO#	05827						
Test#	R-180531-49997						

**TESTING METHODS REQUESTED:**

<i>Testing Services Inc. was instructed by the client to test for the following...</i>	
Standard:	Aachener Test Method: Dimensional Stability- Aachener Method (Also complies with ISO 2551)

**SAMPLING PLAN:**

Sampling Date:	5/31/2018
<ul style="list-style-type: none"> <li>Specimen sampling is performed in the sampling department at TSI.</li> <li>The sampling size of specimens is determined by the test method requirements.</li> <li>In the event a specific sampling size is not called for, a determination will be made based on previous testing experience, and approved for use by an authorized manager.</li> <li>All samples are subjected to the outside environmental conditions of temperature and relative humidity.</li> <li>Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested</li> </ul>	

**DEVIATION FROM TEST METHOD:**

State reason for any Deviation from, Additions to, or Exclusions From Test Method.
None

**TEST SUMMARY:**


TEST METHOD	TEST DESCRIPTION	TEST RESULT	
		Machine Direction	Cross Machine Direction
ASTM D7570-17	Mean of Initial Measurement	23.9708"	23.9783"
	Mean of Ending Measurement After Exposures	23.9663"	23.9765"
	Dimensional Stability (Inches)	(-) 0.0045"	(-) 0.0018"
	Dimensional Stability (%)	(-) 0.0188 %	(-) 0.0073 %

Guidelines: ± 0.027"

**Uncertainty:**

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**Test Report Approval:**

 Digitally signed by Erle Miles  
DN: cn=Erle Miles, o=Testing Services Inc. Inc., email=erle@testing-services.com, c=US  
 Date: 2018.06.28 12:35:42 -0400  
 Erle Miles, III, Lab Director, Testing Services Inc

TSi Accreditation: Our laboratory is accredited by the US Dept of Commerce, National Institute of Standards and Technology: ISO/IEC 17025:2005.  
 Our code # is: NVLAP 100108-0.

OUR LETTERS AND REPORTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. THESE LETTERS AND REPORTS ARE FOR THE USE ONLY OF THE CLIENT TO WHOM THEY ARE ADDRESSED AND THEIR COMMUNICATION TO ANY OTHERS OR THE USE OF THE NAME TESTING SERVICES, INC. MUST RECEIVE OUR PRIOR WRITTEN APPROVAL. OUR REPORTS, LETTERS, NAME, SEALS, OR INSIGNIA ARE NOT UNDER ANY CIRCUMSTANCES TO BE USED IN ADVERTISING TO THE GENERAL PUBLIC.

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 tsioffice@optilink.us**



## TEST REPORT

**CLIENT:**

Company:	Shaw Contract	Report Number:	74195E-01
Address:	PO Drawer 2128	Lab Test Number:	3021-6665
	Dalton, GA 30722-2128	Test Completion Date:	6/18/2018
		Report Date:	6/26/2018
Requested By:	Stuart Bartenfield	Page:	1 of 1

**TEST MATERIAL:**

Material Type:	Carpet	Date Received:	5/31/2018
Material Condition:	EXCELLENT:    XXX    GOOD:    POOR:    REJECTED:		
Style#	5T261		
Style name	Belong Tile		
Roll#	T10169J		
Backing	EcoWorx		
MO#	05827		
Test#	R-180531-49997		

**TESTING METHODS REQUESTED:**

<i>Testing Services Inc. was instructed by the client to test for the following...</i>			
Standard:	AATCC 134	Test Method:	Electrostatic Propensity of Carpets

**SAMPLING PLAN:**

Sampling Date:	5/31/2018
<ul style="list-style-type: none"> <li>• Specimen sampling is performed in the sampling department at TSI.</li> <li>• The sampling size of specimens is determined by the test method requirements.</li> <li>• In the event a specific sampling size is not called for, a determination will be made based on previous testing experience, and approved for use by an authorized manager.</li> <li>• All samples are subjected to the outside environmental conditions of temperature and relative humidity.</li> <li>• Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested</li> </ul>	

**DEVIATION FROM TEST METHOD:**

State reason for any Deviation from, Additions to, or Exclusions From Test Method.
None

**TEST SCOPE:**

This test method assesses the static generating propensity of submitted floor covering material. After being brought to equilibrium atmospheric conditions, the test material is walked on by a test operator in a specified manner with specified shoe soles and heels. The static charge, which builds up on the operator during walking upon the test specimen, is monitored continuously by a voltage indicator and recorded in kv. The results of this test relate to the sample tested. Its static performance may be altered in service as a result of wear, soiling, cleaning, temperature and relative humidity.

**TEST EQUIPMENT:**

Base	Earth Metal Base Plate 2000mmX1000mm
Underlayment	Grounded Metal Plate
Sandals	Neolite
Reference/Control Carpets	AATCC Protected & Unprotected (In Service) 8/2016
Voltage Measuring	Keithley Electrometer, Cert # 344170 3/26/2018
Voltage Recording	Esterline Angus Continuous Chart, Cert # 344171 3/26/2018
Chamber Condition Measuring	Dickson 2 Channel Chart Recorder Cert # 344169 3/26/2018 Dickson Hygrometer w/ Temp Indicator, Cert # 344168 3/26/2018

**TEST DATA:**


MODE	AVERAGE
Step / Neolite Sole	(+) 0.63 kv
Scuff / Neolite Sole	(-) 2.00 kv

Guidelines: ≤ 3.5 kv commercial  
 ≤ 5.0 kv residential

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**Test Report Approval:**

 Digitally signed by Erle Miles  
 DN: cn=Erle Miles, o=Testing Services Inc., ou=, email=erle@tsi.com, c=US  
 Date: 2018.06.26 12:35:26 -0400 Erle Miles, III, Lab Director, Testing Services Inc.

TSI Accreditation: Our laboratory is accredited by the US Dept. of Commerce, National Institute of Standards and Technology: ISO/IEC 17025:2005. Our code # is: NVLAP 100108-0.



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# TEST REPORT

**CLIENT:**

Company:	Shaw Contract	Report Number:	74195A-01
Address:	PO Drawer 2128	Lab Test Number:	3021-6665
	Dalton, GA 30722-2128	Test Completion Date:	6/18/2018
		Report Date:	6/26/2018
Requested By:	Stuart Bartenfield	Page:	1 of 1

**TEST MATERIAL:**

Material Type:	Carpet	Date Received:	5/31/2018
Material Condition:	EXCELLENT:    XXX    GOOD:    POOR:    REJECTED:		
Style#	5T261		
Style name	Belong Tile		
Roll#	T10169J		
Backing	EcoWorx		
MO#	05827		
Test#	R-180531-49997		

**TESTING METHODS REQUESTED:**

<i>Testing Services Inc. was instructed by the client to test for the following...</i>			
Standard:	ASTM E648, NFPA 253, FTM Standard 372	Test Method:	Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source

**SAMPLING PLAN:**

Sampling Date:	5/31/2018
<ul style="list-style-type: none"> <li>Specimen sampling is performed in the sampling department at TSI.</li> <li>The sampling size of specimens is determined by the test method requirements.</li> <li>In the event a specific sampling size is not called for, a determination will be made based on previous testing experience, and approved for use by an authorized manager.</li> <li>All samples are subjected to the outside environmental conditions of temperature and relative humidity.</li> <li>Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested</li> </ul>	

**DEVIATION FROM TEST METHOD:**

State reason for any Deviation from, Additions to, or Exclusions From Test Method.
None

**TEST SCOPE:**

This test method measures the critical radiant flux of horizontally mounted floor-covering systems exposed to a flaming ignition source positioned on a graded radiant heat energy environment within an enclosed chamber. The results are designed to provide a basis for estimating one aspect of fire behavior of a flooring system.

**TEST SUMMARY:**

TEST METHOD	TEST DESCRIPTION	TEST RESULT			
		Burn Distance	Time to Flame Out	Critical Radiant Flux	
ASTM E648-17a	Critical Radiant Flux	Specimen #1	36.7 cm	27:58 min	0.57 W/cm <sup>2</sup>
		Specimen #2	39.2 cm	39:38 min	0.53 W/cm <sup>2</sup>
		Specimen #3	42.6 cm	47:07 min	0.47 W/cm <sup>2</sup>
		Average		0.52 W/cm <sup>2</sup>	
	NFPA Classification	Class I			
	STDEV	0.05			
	COF of Variation	9.55%			

Mounting Board: Calcium Silicate Board  
Conditioning: 96 hours @ 70°F 50% RH


Adhesive: Shaw 5000  
Calibration Curve: 361L

Trowel: 1/16" x 1/16" x 1/16" V Notch  
Radiometer #: 5356

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**Test Report Approval:**

 Digitally signed by Erle Miles, III, DN: cn=Erle Miles, o=Testing Services Inc., email=erle@testing-services.com, c=US, Date: 20180626 12:56:52 -0400  
Erle Miles, III, Lab Director, Testing Services Inc.

TSi Accreditation: Our laboratory is accredited by the US Dept. of Commerce, National Institute of Standards and Technology: ISO/IEC 17025:2005



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## TEST REPORT

**CLIENT:**

Company:	Shaw Contract	Report Number:	74195B-01
Address:	PO Drawer 2128	Lab Test Number:	3021-6665
	Dalton, GA 30722-2128	Test Completion Date:	6/18/2018
		Report Date:	6/26/2018
Requested By:	Stuart Bartenfield	Page:	1 of 1

**TEST MATERIAL:**

Material Type:	Carpet				Date Received:	5/31/2018
Material Condition:	EXCELLENT:	XXX	GOOD:	POOR:	REJECTED:	
Style#	5T261					
Style name	Belong Tile					
Roll#	T10169J					
Backing	EcoWorx					
MO#	05827					
Test#	R-180531-49997					

**TESTING METHODS REQUESTED:**

<i>Testing Services Inc. was instructed by the client to test for the following...</i>			
Standard:	ASTM E662	Test Method:	Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials

**SAMPLING PLAN:**

Sampling Date:	5/31/2018
<ul style="list-style-type: none"> <li>Specimen sampling is performed in the sampling department at TSI.</li> <li>The sampling size of specimens is determined by the test method requirements.</li> <li>In the event a specific sampling size is not called for, a determination will be made based on previous testing experience, and approved for use by an authorized manager.</li> <li>All samples are subjected to the outside environmental conditions of temperature and relative humidity.</li> <li>Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested</li> </ul>	

**DEVIATION FROM TEST METHOD:**

State reason for any Deviation from, Additions to, or Exclusions From Test Method.
None

**TEST SUMMARY:**

TEST METHOD	TEST DESCRIPTION	AVERAGE FLAMING MODE	AVERAGE NON-FLAMING MODE
ASTM E662-17a	Time to Attain (Minutes)	4.3	19.3
	Specific Optical Density (DS) @ 1.5 Min	55	1
	Specific Optical Density (DS) @ 4.0 Min	198	20
	Maximum Specific Optical Density (DM)	217	130
	Clear Beam (DC)	18	5
	Corrected (DMC)	198	125

Requirements: ≤ 450 DMC  
Radiometer Output: 8.1 mv

Burner Fuel: Propane  
Furnace Voltage: 117v

Irradiance: 2.5 W/cm<sup>2</sup>  
Pressure: Positive Under 3" Water

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**Test Report Approval:**


Digitally signed by Erle Miles  
DN: cn=Erle Miles, o=Testing Services  
Inc., email=erle@testing-services.com,  
c=US  
Date: 2018.06.28 13:36:17 -0400

Erle Miles, III, Lab Director, Testing Services Inc.

TSi Accreditation:

Our laboratory is accredited by the US Dept. of Commerce, National Institute of Standards and Technology: ISO/IEC 17025:2005

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# TEST REPORT

**CLIENT:**

Company:	Shaw Contract	Report Number:	74195C-01
Address:	PO Drawer 2128	Lab Test Number:	3021-6665
	Dalton, GA 30722-2128	Test Completion Date:	6/11/2018
		Report Date:	6/26/2018
Requested By:	Stuart Bartenfield	Page:	1 of 1

**TEST MATERIAL:**

Material Type:	Carpet			Date Received:	5/31/2018
Material Condition:	EXCELLENT:	XXX	GOOD:	POOR:	REJECTED:
Style#	5T261				
Style name	Belong Tile				
Roll#	T10169J				
Backing	EcoWorx				
MO#	05827				
Test#	R-180531-49997				

**TESTING METHODS REQUESTED:**

<i>Testing Services Inc. was instructed by the client to test for the following...</i>			
Standard:	ASTM D2859	Test Method:	Standard Test Method for Ignition Characteristics of Finished Textile Pile Yarn Floorcoverings

**SAMPLING PLAN:**

Sampling Date:	5/31/2018
<ul style="list-style-type: none"> <li>Specimen sampling is performed in the sampling department at TSI.</li> <li>The sampling size of specimens is determined by the test method requirements.</li> <li>In the event a specific sampling size is not called for, a determination will be made based on previous testing experience, and approved for use by an authorized manager.</li> <li>All samples are subjected to the outside environmental conditions of temperature and relative humidity.</li> <li>Sample requiring pre-determined exposure to specified environmental conditions based on a specific test method, take place in the departments in which they are tested</li> </ul>	

**TEST SCOPE:**

This test method provides a method of determining the flammability characteristics utilizing a small ignition source (methenamine tablet) in a laboratory environment. Eight specimens, 9" X 9", were taken from the sample lot and preconditioned in an air circulating oven @ 150°C for 2 hours. After removal from the oven, each specimen was placed into a desiccator for 1 hour prior to performing the test. After cooling, each sample was then placed into the test chamber floor and a steel frame, 230mm X 230mm with 200mm diameter hole, placed on top of the pile surface. A methenamine tablet was placed centrally onto the fiber surface. The pill was ignited using a lighted match, with the ignition flame and propagated flame allowed to self-extinguish.

**CRITERIA:**

The specimen passes, if the charred portion of the test specimen, did not extend to within 25mm (1") of the diameter hole of the steel frame. The U.S. Consumer Product Safety Commission requires that at least seven of the eight specimens pass the test for acceptance as meeting the standard.

**DEVIATION FROM TEST METHOD:**

State reason for any Deviation from, Additions to, or Exclusions From Test Method.
None

**TEST DATA:**

Test Specimen #	Uncharred Area	Result
1	3.0"+	Pass
2	3.0"+	Pass
3	3.0"+	Pass
4	3.0"+	Pass
5	3.0"+	Pass
6	3.0"+	Pass
7	3.0"+	Pass
8	3.0"+	Pass

Test Summary	
8 out of 8 Pass	Passes, U.S. CPSC 16CFR 1630 (FF1-70)

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**Test Report Approval:**

*[Signature]*  
Digitally signed by Erle Miles  
 DN: cn=Erle Miles, o=TSI  
 Serial: 100, Reason: 1.2.840.113559.4.4.131  
 Date: 2018.06.28 13:55:57 -0400  
 Erle Miles, III, Lab Director Testing Services Inc.

TSI Accreditation: Our laboratory is accredited by the US Dept. of Commerce, National Institute of Standards and Technology; ISO/IEC 17025:2005. Our code # is: NVLAP 100108-0.



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