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TEST REPORT

DATE: 12/30/2011 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.

TEST METHOD CONDUCTED	ASTM E662-09 Smoke Density (Flaming) Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials also referenced as NFPA 258

DESCRIPTION OF TEST SAMPLE	
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

This procedure is designed to measure the specific optical density of smoke generated by the test specimen within a closed chamber. Each specimen is exposed to an electrically heated radiant-energy source positioned to provide a constant irradiance level of 2.5 watts/square cm on the specimen surface. Measurements are recorded through a photometric system employing a vertical beam of light and a photo detector positioned to detect the attenuation of light transmittance caused by smoke accumulation within the chamber. The light transmittance measurements are used to calculate specific optical density, a quantitative value which can be factored to estimate the smoke potential of materials. Two burning conditions can be simulated by the test apparatus. The radiant heating in the absence of ignition is referred to as the Non-Flaming Mode. A flaming combustion in the presence of supporting radiation constitutes the Flaming Mode.

CONDITIONS			
PREDRYING OF TEST SAMPLE	24 Hours at 140° F		
CONDITIONING OF TEST SAMPLE	24 Hours at 70° F and 50% Relative Humidity		
FURNACE VOLTAGE	118 V	**IRRADIANCE**	2.5 watts/sq cm
CHAMBER TEMPERATURE	95° F	**CHAMBER PRESSURE**	3" H_2O
TEST MODE	Flaming		

AVERAGE MAXIMUM DENSITY CORRECTED (Dmc)		**FLAMING**	273
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES			290
	Specimen 1	**Specimen 2**	**Specimen 3**
Maximum Density (Dm)	296.0	324.0	304.0
Time to Dm (minutes)	1.5	1.5	1.5
Clear Beam (Dc)	36.0	36.0	32.0
Corr. Max Density (Dmc)	260.0	288.0	272.0
Density at 1.5 minutes	296.0	324.0	304.0
Density at 4.0 minutes	277.0	306.0	287.0
Time to 90% Dm (minutes)	1.0	1.0	1.0
Specimen Weight (grams)	8.4	8.1	8.3

**** This sample PASSES the requirements of 450 or less.***

APPROVED BY: Gary Asbury

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TEST REPORT

DATE: 12/30/2011 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.

TEST METHOD CONDUCTED	ASTM E662-09 Smoke Density (Non-Flaming) Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials also referenced as NFPA 258

DESCRIPTION OF TEST SAMPLE	
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

This procedure is designed to measure the specific optical density of smoke generated by the test specimen within a closed chamber. Each specimen is exposed to an electrically heated radiant-energy source positioned to provide a constant irradiance level of 2.5 watts/square cm on the specimen surface. Measurements are recorded through a photometric system employing a vertical beam of light and a photo detector positioned to detect the attenuation of light transmittance caused by smoke accumulation within the chamber. The light transmittance measurements are used to calculate specific optical density, a quantitative value which can be factored to estimate the smoke potential of materials. Two burning conditions can be simulated by the test apparatus. The radiant heating in the absence of ignition is referred to as the Non-Flaming Mode. A flaming combustion in the presence of supporting radiation constitutes the Flaming Mode.

CONDITIONS			
PREDRYING OF TEST SAMPLE	24 Hours at 140° F		
CONDITIONING OF TEST SAMPLE	24 Hours at 70° F and 50% Relative Humidity		
FURNACE VOLTAGE	118 V	**IRRADIANCE**	2.5 watts/sq cm
CHAMBER TEMPERATURE	95° F	**CHAMBER PRESSURE**	3" H_2O
TEST MODE	Non-Flaming		

AVERAGE MAXIMUM DENSITY CORRECTED (Dmc)		**NON-FLAMING**	221
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES			148
	Specimen 1	**Specimen 2**	**Specimen 3**
Maximum Density (Dm)	217.0	240.0	211.0
Time to Dm (minutes)	12.0	12.5	12.0
Clear Beam (Dc)	1.0	3.0	1.0
Corr. Max Density (Dmc)	216.0	237.0	210.0
Density at 1.5 minutes	47.0	67.0	41.0
Density at 4.0 minutes	149.0	158.0	137.0
Time to 90% Dm (minutes)	8.5	9.0	8.5
Specimen Weight (grams)	7.9	8.5	8.2

**** This sample PASSES the requirements of 450 or less.***

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TEST REPORT

DATE: 12/30/2011 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.

TEST METHOD CONDUCTED	ASTM E648-08 Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using A Radiant Heat Energy Source, also referenced as NFPA 253 and FTM Standard 372

	DESCRIPTION OF TEST SAMPLE
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

This procedure is designed to measure the critical radiant flux at flame out of horizontally mounted floor covering systems exposed to a flaming ignition in a test chamber which provides a graded radiant heat energy environment. The imposed radiant flux simulates the thermal radiation levels likely to impinge on the floors of a building whose upper surfaces are heated by flames from a fully developed fire in an adjacent room or compartment. The test result is an average critical radiant flux (watts/square cm) which indicates the level of radiant heat energy required to sustain flame propagation in the flooring system once it has been ignited. A minimum of three test specimens are tested and the results are averaged. Theoretically, if a room fire does not impose a radiant flux that exceeds this critical level on a corridor floor covering system, flame spread will not occur.

The NFPA Life Safety Code 101 specifies as Class 1 Critical Radiant Flux of .45 watts/sq cm or higher and Class 2 Critical Radiant Flux as .22 - .44 watts/sq cm.

FLOORING SYSTEM ASSEMBLY			
SUBSTRATE	Mineral-Fiber/Cement Board	**UNDERLAYMENT**	Direct Glue Down
ADHESIVE	Advanced Adhesive 272	**CONDITIONING**	Minimum of 96 hours at 70 ± 5° F and 50 ± 5% relative humidity

	Distance Burned	**Time To Flame Out**	**Critical Radiant Flux**
Specimen 1	25 cm	5 minutes	0.85 watts/square cm
Specimen 2	25 cm	5 minutes	0.85 watts/square cm
Specimen 3	24 cm	5 minutes	0.87 watts/square cm

Average Critical Radiant Flux	0.86 Watts/Square Cm
Standard Deviation	0.01 Watts/Square Cm
Coefficient of Variation	1.1 %

**** NOTE: Meets or exceeds Class 1 rating as specified in NFPA Life Safety Code 101 and IBC 804.2 Classification.***

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TEST REPORT

DATE: 12/30/2011 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.

TEST METHOD CONDUCTED	Surface Flammability of Carpets and Rugs (16 CFR Chapter II, Subchapter D, Part 1630 CPSC FF 1-70) also referenced as ASTM D2859

	DESCRIPTION OF TEST SAMPLE
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

This test method is intended to measure the response of finished textile floor covering materials when exposed to an ignition source under controlled laboratory conditions. It is applicable to all types of textile floor coverings whether constructed from natural or man-made materials.

TEST CRITERION

The uncharred area of the test specimen must be greater than one inch in at least seven of the eight specimens tested in order to meet the acceptance criterion.

TEST RESULTS

	SPECIMEN NUMBER							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Uncharred Area (Inches)	3.6	3.6	3.5	3.5	3.7	3.6	3.6	3.6

NOTE: This sample was tested on the face side.

This sample *PASSES* the Federal Flammability Standard DOC FF 1-70.

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TEST REPORT

DATE 01/09/12 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.
TEST METHOD CONDUCTED	Compression and Recovery (Static Load)

	DESCRIPTION OF TEST SAMPLE
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

This method is intended to show the resiliency of pile floor coverings after being subjected to a static load of 50 pounds per square inch for a 48 hour period. Thickness measurements are determined before and immediately after release from pressure. Recovery measurements are continued every 24 hours until 96 hours have elapsed.

TEST RESULTS

	THICKNESS MEASUREMENTS	RECOVERY PERCENTAGE
Original	0.137 Inch	-----
Immediate	0.115 Inch	83.9%
After 24 Hours	0.122 Inch	89.1%
After 48 Hours	0.125 Inch	91.2%
After 72 Hours	0.127 Inch	92.7%
After 96 Hours	0.129 Inch	94.2%

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TEST REPORT

DATE: 12/30/2011 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.
TEST METHOD CONDUCTED	ASTM D5848-10 Mass Per Unit Area of Pile Yarn Floor Coverings

DESCRIPTION OF TEST SAMPLE	
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

Representative test specimens are taken from the sample submitted and conditioned to equilibrium at 70° ± 2° F and 65% ± 2% relative humidity. The pile yarn mass is determined by separating and removing the pile yarn from the backing fabric and the back coating with the assistance of the appropriate solvents.

TEST RESULTS

AVERAGE PILE YARN WEIGHT	42.6 Ounces/Square Yard
TOTAL THICKNESS	0.137 Inch

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TEST REPORT

DATE: 12/30/2011 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.

TEST METHOD CONDUCTED	ASTM D5252-05 Standard Practice for the Operation of the Hexapod Tumble Drum Tester

	DESCRIPTION OF TEST SAMPLE
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

The test specimen is subjected to "Hexapod" tumbling in 2,000 cycle increments. A vacuum was used to make four forward and backward passes along the length of the specimen after each 2,000 cycles.

After the requested number of cycles have been completed, the test specimen is assessed by three technicians for appearance change in accordance with the CRI standard reference scale and color change using the AATCC Gray Scale.

TEST RESULTS

NUMBER OF CYCLES	APPEARANCE RATING	COLOR CHANGE RATING
12,000	5.0	5.0

	APPEARANCE RATING KEY
5	Excellent: No visual change noticeable
4	Good: Slight change due to disturbance of pile
3	Fair: Noticeable change due to pile disturbance or matting
2	Poor: Loss of texture due to pile disturbance and/or matting
1	Very Poor: Severe pile disturbance and/or matting

	COLOR CHANGE RATING KEY
5	Negligible or no change
4	Slight change
3	Moderate change
2	Considerable change
1	Severe change

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TEST REPORT

DATE: 12/30/2011 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.

TEST METHOD CONDUCTED	ASTM F137-08 Test Method for Flexibility of Resilient Flooring Materials with Cylindrical Mandrel Apparatus

DESCRIPTION OF TEST SAMPLE	
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

The flexibility of a specimen is determined by flexing the material around mandrels of varying sizes. The mandrel sizes range from 6 mm to 120 mm in diameter. The specimen is flexed 180° around the mandrel and then examined for cracking or breaking. If none exists, the procedure is repeated on the next smaller mandrel. The procedure is continued until the material breaks or cracks or until the smallest mandrel is passed.

TEST RESULTS

RESULT	PASSES	6 mm Mandrel

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TEST REPORT

DATE: 12/30/2011 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.

TEST METHOD CONDUCTED	ASTM D3936-05 Standard Test Method for Resistance to Delamination of the Secondary Backing of Pile Yarn Floor Covering

DESCRIPTION OF TEST SAMPLE	
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

This test method is designed to measure the force required to delaminate the secondary backing adhered to the finished pile floor covering.

TEST RESULTS

SPECIMEN 1	5.5 Lbs/Inch
SPECIMEN 2	5.3 Lbs/Inch
SPECIMEN 3	5.3 Lbs/Inch

Average Delamination Strength	5.4 Lbs/Inch

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TEST REPORT

DATE: 12/30/2011 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.

TEST METHOD CONDUCTED	ASTM D5034-09 Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)

	DESCRIPTION OF TEST SAMPLE
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

This test method is designed to measure the breaking load or woven and non-woven backing fabrics. It is a measure of the fabric's ability to withstand the forces applied during installation and the loads imposed by heavy traffic.

TEST RESULTS

	WARP (Length)		FILL (Width)	
	ELONGATION	**BREAKING LOAD**	**ELONGATION**	**BREAKING LOAD**
SPECIMEN 1	31.2 %	325.3 Lbs.	20.8 %	154.8 Lbs.
SPECIMEN 2	29.2 %	303.1 Lbs.	20.8 %	154.4 Lbs.
SPECIMEN 3	29.1 %	313.0 Lbs.	21.0 %	156.8 Lbs.
SPECIMEN 4	31.4 %	315.2 Lbs.	20.6 %	161.3 Lbs.
SPECIMEN 5	29.9 %	312.9 Lbs.	20.5 %	160.4 Lbs.
AVERAGE	**30.2** %	**313.9** Lbs.	**20.7** %	**157.5** Lbs.

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TEST REPORT

DATE: 12/30/2011 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.

TEST METHOD CONDUCTED	ASTM C1028-96 Test Method for Determining the Static Coefficient of Friction by the Horizontal Dynamometer Pull-Meter Method

	DESCRIPTION OF TEST SAMPLE
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

This test determines the static coefficient of friction of tile or other surfaces using a neolite heel assembly.

A neolite heel assembly with a 50 pound load is pulled horizontally with a dynamometer to measure the force required to cause the assembly to slip. After the sample is tested, measurements are calculated and reported as the static coefficient of friction.

TEST RESULTS

SAMPLE CONDITION	Tested as Received

HEEL ASSEMBLY CONDITION	**STATIC COEFFICIENT OF FRICTION**
Dry	0.73

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TEST REPORT

DATE: 12/30/2011 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.

TEST METHOD CONDUCTED	ASTM D6119-05 Creating Surface Appearance Changes in Pile Yarn Floor Covering from Foot Traffic

	DESCRIPTION OF TEST SAMPLE
IDENTIFICATION	Ikat W2W 2011-12-16

PURPOSE

Assess the appearance retention of a pile floor covering as a result of pedestrian traffic in a controlled environment.

PROCEDURE

Specimens 9" x 22" are cut from the length and width direction and fastened by suitable means to the floor in the 22" width perpendicular to the traffic flow. Pedestrians walk in fifty minute intervals. All specimens are vacuumed every hour before traffic is resumed. Multiple electronic counters are used to determine when the predetermined amount (20,000) of traffic has been applied.

At the test's conclusion all specimens are vacuumed before removal from the floor with the last pass of the vacuum in the direction of the original pile. All specimens are allowed to recover at room temperature a minimum of 16 hours before grading by a panel of technicians.

Specimens are individually rated in accordance with CRI TM 101 using the CRI Reference Scales. Ratings are averaged and reported to the nearest 0.1. The higher the rating the better the expected performance. The rating scale describes the appearance change of the tested product.

TEST RESULTS

APPEARANCE RATING	5.0

	RATING KEY
5	None
4	Slight
3	Moderate
2	Significant
1	Severe

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TEST REPORT

DATE: 01/05/2012 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.

TEST METHOD CONDUCTED	ASTM F2199-09 Test Method for Determining Dimensional Stability of Resilient Floor Tile after Exposure to Heat

DESCRIPTION OF TEST SAMPLE	
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

This test method is intended for use in determining the linear change of resilient flooring after being exposed to heat. The largest dimensional change is reported as the dimensional stability.

TEST RESULTS

IDENTIFICATION	RESULT
Length	-0.041 Inch per 12 inches (0.34% Loss)
Width	-0.006 Inch per 12 inches (0.05% Loss)

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TEST REPORT

DATE: 01/09/12 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.

TEST METHOD CONDUCTED	ASTM D3884-09 Abrasion Resistance of Textile Fabrics (Rotary Platform, Double-Head Method)

	DESCRIPTION OF TEST SAMPLE
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

A test specimen is subjected to the rubbing action of two abrading wheels under controlled conditions of pressure and abrasive action. The abrasion wheels rest on the surface of the specimen which is mounted on a rotating platform. Turning of the platform initiates the abrasive action on the test specimen.

TEST RESULTS

ABRASION WHEEL	H-18
LOAD APPLIED	1,000 Grams
NUMBER OF CYCLES	1,000

NOTE: Test sample was abraded until primary backing was visible, this was considered the end point.

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TEST REPORT

DATE: 01/17/2011 **TEST NUMBER:** 144243

CLIENT	Chilewich, LLC.
TEST METHOD CONDUCTED	Phillips Roll Chair

DESCRIPTION OF TEST SAMPLE	
IDENTIFICATION	Ikat W2W 2011-12-16

GENERAL PRINCIPLE

This test is designed to determine what effect the action of rolling traffic has on a particular flooring surface. The sample is subjected to the reciprocating action of a chair base which is loaded to 150 pounds total weight. The chair castors are set to cause a random cycling motion resulting in an oval shaped wear pattern. After a predetermined number of cycles, the test sample is given a numerical rating based on the general appearance, with particular attention to pile crushing and matting.

TEST RESULTS

NUMBER OF CYCLES	APPEARANCE RATING
20,000	4.5*

NOTE: No delamination of secondary backing.

RATING KEY	
5	Excellent: No change or negligible change
4	Good: Slight change
3	Fair: Noticeable wear pattern
2	Poor: Loss of texture and thickness
1	Very Poor: Severe, generally considered unacceptable

APPROVED BY: Gary Asbury

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