Professional Testing Laboratory, Inc.

TEST REPORT

DATE: 09/14/2006 **TEST NUMBER**: 102992

CLIENT	Shaw Contract

TEST METHOD CONDUCTED	AATCC 134-01 Electrostatic Propensity of Carpets

DESCRIPTION OF TEST SAMPLE	
IDENTIFICATION	5A102 Clarity UPAT
COLOR	-----
ROLL	E33953-2
CONSTRUCTION	Multi-Level Cut & Loop Pile
FIBER	-----
BACKING	UltraLoc Pattern
REFERENCE	TEST NO: 090506-1B

GENERAL PRINCIPLE

This method is designed to assess the static propensity of flooring material by controlled laboratory simulation of conditions which are known from experience to be strongly contributory to excessive accumulation of static charges.

A flooring material preconditioned to equilibrium at controlled atmospheric conditions is walked on by a test subject in a specified manner with specified shoe soles. The static charges which build up on the tester are monitored continuously by a recorder.

A neolite shoe sole has been chosen as the primary reference material because its static performance is much like that of many common leathers. It is a commonly used shoe sole material and can be easily cleaned, while its chemical and physical properties are quite uniform.

A chrome tanned leather shoe sole has been chosen for a secondary reference material because it is representative of a certain class of leathers whose performance differs significantly from that of neolite soles on certain carpet fiber. Statistically, chrome tanned leather comprises a very small percentage of the shoe sole market, but must be considered in critical applications.

TEST CONDITIONS	
TEST CONDITIONS	The sample is conditioned to equilibrium and tested at 70 ± 2º F and 20 ± 2% relative humidity
SAMPLE PREPARATION	Tested As Received
SUBSTRATE	40 Ounce Rubberized Jute/ Hair Pad

	DAY 1	DAY 2	AVERAGE
TEST I: Step Test/Neolite Sole	**-1.7 KV**	**-1.8 KV**	**-1.8 KV**
TEST II: Scuff Test/Neolite Sole	**-2.2 KV**	**-2.0 KV**	**-2.1 KV**
TEST III: Step Test/Leather Sole	**+0.2 KV**	**+0.2 KV**	**+0.2 KV**
TEST IV: Scuff Test/Leather Sole	**+0.2 KV**	**+0.1 KV**	**+0.2 KV**
MAXIMUM AVERAGE VOLTAGE		**NEG 2.1 KV**	

"The results of this test relate to the sample of flooring material tested. Its static performance may be altered in service as a result of wear, soiling, cleaning, temperature, relative humidity, etc..."

APPROVED BY: Gary Calvery

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TEST REPORT

DATE: 09/14/2006 **TEST NUMBER**: 102992

CLIENT	Shaw Contract

TEST METHOD CONDUCTED	ASTM E662-03 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	5A102 Clarity UPAT
COLOR	-----
ROLL	E33953-2
CONSTRUCTION	Multi-Level Cut & Loop Pile
FIBER	-----
BACKING	UltraLoc Pattern
REFERENCE	TEST NO: 090506-1B

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 **CONDITIONING OF TEST SAMPLE**	24 Hours at 140º F 24 Hours at 70º F and 50% Relative Humidity		
FURNACE VOLTAGE **CHAMBER TEMPERATURE** **TEST MODE**	111 V 95º F Flaming	**IRRADIANCE** **CHAMBER PRESSURE**	2.5 watts/sq cm 3" H_2O

AVERAGE MAXIMUM DENSITY CORRECTED (Dmc)		**FLAMING**	170
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES			173
	Specimen 1	**Specimen 2**	**Specimen 3**
Maximum Density (Dm)	166.0	184.0	219.0
Time to Dm (minutes)	8.0	7.5	4.5
Clear Beam (Dc)	20.0	21.0	18.0
Corr. Max Density (Dmc)	146.0	163.0	201.0
Density at 1.5 minutes	1.0	2.0	2.0
Density at 4.0 minutes	146.0	161.0	211.0
Time to 90% Dm (minutes)	4.0	4.5	3.5
Specimen Weight (grams)	12.0	11.9	12.3

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Professional Testing Laboratory, Inc.

TEST REPORT

DATE: 09/14/2006 **TEST NUMBER**: 102992

CLIENT	Shaw Contract

TEST METHOD CONDUCTED	ASTM E648-03 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	5A102 Clarity UPAT
COLOR	-----
ROLL	E33953-2
CONSTRUCTION	Multi-Level Cut & Loop Pile
FIBER	-----
BACKING	UltraLoc Pattern
REFERENCE	TEST NO: 090506-1B

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	Subset 1000	**CONDITIONING**	Minimum of 96 hours at 70 ± 5º F and 50 ± 5% relative humidity

This test report relates to the installation in accordance with the criteria set forth in the report. Any variation in the installation criteria may produce different results.

	Distance Burned	**Time To Flame Out**	**Critical Radiant Flux**
Specimen 1	38 cm	30 minutes	0.51 watts/square cm
Specimen 2	34 cm	39 minutes	0.57 watts/square cm
Specimen 3	38 cm	22 minutes	0.51 watts/square cm

Average Critical Radiant Flux	0.53 Watts/Square Cm
Standard Deviation	0.04 Watts/Square Cm
Coefficient of Variation	6.54 %

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

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