Professional Testing Laboratory Inc.

TEST REPORT

DATE: 05-19-2023 **Page 1 of 1** **TEST NUMBER**:0296768

CLIENT	Urban Surfaces

TEST METHOD CONDUCTED	ASTM E648 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	1901-2134 Mission Bay 7"x48" (4.5)
LOT NUMBER	Batch: 221129-11991
CONSTRUCTION	SPC

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**	Loose Laid
ADHESIVE	N/A	**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	16 cm	5 minutes	0.95 watts/square cm
Specimen 2	17 cm	5 minutes	0.95 watts/square cm
Specimen 3	19 cm	5 minutes	0.93 watts/square cm

Average Critical Radiant Flux	0.94 Watts/Square Cm
Standard Deviation	0.01 Watts/Square Cm
Coefficient of Variation	1 %

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

APPROVED BY: Gary Asbury

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