

## **TEST REPORT**

CLIENT	SuZhou Tuntex Fiber & Carpet Company
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	ASTM E648 Standard Test Method for Critical Radiant Flux of Floor				
TEST METHOD CONDUCTED	Covering Systems Using A Radiant Heat Energy Source, also referenced				
	as NFPA 253 and FTM Standard 372				



DESCRIPTION OF TEST SAMPLE	
IDENTIFICATION	LVT Luxury Vinyl Tile
CONSTRUCTION	Multi Vinyl Layer

## **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		CONDITIONING	Minimum of 96 hours at 70 $\pm$ 5°F and 50 $\pm$ 5% relative humidity		

	Distance Burned	Time To Flame Out	Critical Radiant Flux
Specimen 1	12 cm	5 minutes	1.09 watts/square cm
Specimen 2	11 cm	5 minutes	1.10 watts/square cm
Specimen 3	13 cm	5 minutes	1.07 watts/square cm

Average Critical Radiant Flux	1.09 Watts/Square Cm
Standard Deviation	0.01 Watts/Square Cm
Coefficient of Variation	1.15 %

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

Lary asbury

APPROVED BY:

NVLAP

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