



# TEST REPORT

DATE: 09-30-2016

TEST NUMBER: 0231754

<b>CLIENT</b>	Signature Systems Group
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<b>TEST METHOD CONDUCTED</b>	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
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DESCRIPTION OF TEST SAMPLE	
<b>IDENTIFICATION</b>	T1 E 100FR (Sample #9)
<b>CONSTRUCTION</b>	P. Prop. Floor Panels

### 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			
<b>SUBSTRATE</b>	Mineral-Fiber/Cement Board	<b>UNDERLAYMENT</b>	Loose Laid
<b>ADHESIVE</b>	N/A	<b>CONDITIONING</b>	Minimum of 96 hours at 70 ± 5° F and 50 ± 5% relative humidity

	Distance Burned	Time To Flame Out	Critical Radiant Flux
<b>Specimen 1</b>	19 cm	6 minutes	0.93 watts/square cm
<b>Specimen 2</b>	17 cm	6 minutes	0.97 watts/square cm
<b>Specimen 3</b>	20 cm	6 minutes	0.91 watts/square cm

<b>Average Critical Radiant Flux</b>	0.94 Watts/Square Cm
<b>Standard Deviation</b>	0.02 Watts/Square Cm
<b>Coefficient of Variation</b>	2.66 %

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

APPROVED BY:



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