

## **TEST REPORT**

CLIENT	UPOFLOOR
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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	Quartz -2149	
COLOR	9302	
LOT NUMBER	3014	

## **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	Upofloor 5900	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	21 cm	16 minutes	0.86 watts/square cm
Specimen 2	24 cm	19 minutes	0.81 watts/square cm
Specimen 3	28 cm	21 minutes	0.75 watts/square cm

Average Critical Radiant Flux	0.81 Watts/Square Cm
Standard Deviation	0.04 Watts/Square Cm
Coefficient of Variation	5.57 %

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

APPROVED BY:

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