Professional Testing Laboratory Inc.

TEST REPORT

DATE:02-18-2022 **Page 1 of 1** **TEST NUMBER**:0284525

CLIENT	Remp SpA

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	Tile

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	Acrylic	**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	19 cm	5 minutes	0.94 watts/square cm
Specimen 2	16 cm	5 minutes	1.00 watts/square cm
Specimen 3	17 cm	6 minutes	0.98 watts/square cm

Average Critical Radiant Flux	0.97 Watts/Square Cm
Standard Deviation	0.02 Watts/Square Cm
Coefficient of Variation	2.56 %

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

APPROVED BY: Gary Asbury

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