**Professional Testing Laboratory, Inc.**

# TEST REPORT

**DATE: 07-16-2014** **TEST NUMBER:** 0209939

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| **CLIENT** | Philadelphia Carpet/Div. Of Shaw Industries |

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| **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** | |
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| **IDENTIFICATION** | 54745 Franchise II 26 |
| **COLOR** | 00700 |
| **ROLL NUMBER** | PC6386-5 |
| **CONSTRUCTION** | Multi-Level Loop Pile |
| **BACKING** | StaLok Pattern |
| **REFERENCE** | TEST NO: 070714-6 |

**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** | Subset 1000 | **CONDITIONING** | Minimum of 96 hours at 70 ± 5° F and 50 ± 5% relative humidity |

This test report relates to the installation in accordance with the criteria set forth in the report. Any variation in the installation criteria may produce different results.

| | **Distance Burned** | **Time To Flame Out** | **Critical Radiant Flux** |
|---|---|---|---|
| **Specimen 1** | 21 cm | 10 minutes | 0.91 watts/square cm |
| **Specimen 2** | 18 cm | 9 minutes | 1.00 watts/square cm |
| **Specimen 3** | 20 cm | 9 minutes | 0.95 watts/square cm |

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|---|---|
| **Average Critical Radiant Flux** | 0.95 Watts/Square Cm |
| **Standard Deviation** | 0.04 Watts/Square Cm |
| **Coefficient of Variation** | 3.86 % |

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

**APPROVED BY:** Gary Calvery

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