

TEST REPORT

DATE: 08-11-2015TEST NUMBER: 0221533

| CLIENT | Masland Carpets |
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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 | | |
|----------------------------|------------------|--|
| IDENTIFICATION | 7100 Keystone 40 | |
| COLOR | 359 Scarlet | |
| ROLL NUMBER | R0073693490 | |
| CONSTRUCTION | Cut Pile | |
| FIBER | 100% Nylon | |
| BACKING | Woven Synthetic | |

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.

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|---|----------------------------|--------------|--|--|
| FLOORING SYSTEM ASSEMBLY | | | | |
| SUBSTRATE | Mineral-Fiber/Cement Board | UNDERLAYMENT | Direct Glue Down | |
| ADHESIVE | Advance Adhesive 275 | 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 | 1.07 watts/square cm |
| Specimen 2 | 13 cm | 6 minutes | 1.04 watts/square cm |
| Specimen 3 | 16 cm | 6 minutes | 0.97 watts/square cm |

| Average Critical Radiant Flux | 1.03 Watts/Square Cm |
|-------------------------------|----------------------|
| Standard Deviation | 0.04 Watts/Square Cm |
| Coefficient of Variation | 4.08 % |

^{*} 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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