

114M Dech

ASTM E 648-03

Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source

TEST REPORT

Client:

Signature Systems, LLC 50 East 42nd St. Suite 501

Address:

New York, NY 10017

Report No:

3090521SAT-005

Sample Received:

January 17, 2006

Test Date:

January 31, 2006

Report Date:

February 6, 2006

Sample Conditioning:

69.8±5.4°F and 50±5% relative humidity

Sample Identification

Ultradeck/Ice

Description

UltraDeck temporary flooring system. 12"x 24" modular interlocking floor for tents, stadiums, arenas, and special events.

Sample Preparation

The specimen was tested with a 0.25-inch cement board as a substrate. An adhesive material was not used.

Environmental Conditions: 74°F and 40% r.h.

This Test Witnessed by: n/a

Intertek Testing Services NA, Inc. 16015 Shady Falls Road Elmendorf, Texas 78112 Telephone: 210-635-8100 Fax: 1-210-635-8101 e-mail: www.intertek-etlsemko.com

Test Overview

This procedure provides a way of measuring *critical radiant flux* (the level of incident radiant heat energy on a floor covering system at the most distant flame-out point, reported as W/cm²) of horizontally mounted floor-covering systems exposed to a flaming ignition source while being exposed to radiant heat energy from a panel with approximately a 30° angle from the horizontal. The radiant flux ranges from 1.04 W/cm² at the 100 mm mark to 0.11 W/cm² at the 900 mm mark.

Test Procedure

At least three specimens shall be tested. The specimens are conditioned at $69.8 \pm 5.4^{\circ}$ F and a relative humidity of 50 ± 5 % for a minimum of 48 hours. After the ASTM E 648 calibration procedures, the specimen is loaded into the test chamber. After a 5 minute pre-heat time, the pilot flame is placed on top of the specimen at the 0 mm mark. This pilot flame is to remain in contact with the specimen for 5 minutes, then removed. If the specimen does not propagate flame within 5 minutes following pilot burner flame application, the test is terminated. For specimens that do propagate flame, the test is continued until the flame goes out. The distance to the farthest flame-out point is noted, which is then used to determine the critical radiant flux, based on a radiant heat energy flux profile curve of the apparatus obtained during the calibration.

Test Results

Specimen	1	2	3
Maximum Distance (mm)	1016	1016	1016
Time to Max. Distance (min.)	43.00	27.05	37.15
Critical Radiant Flux (W/cm ²)	< 0.11*	< 0.11*	< 0.11*
Time to All Flame Out(min.)	51.58	36.83	46.28

^{*}Data above 900mm is not available. (Radiant Flux at 900 mm = 0.11 W/cm sq.) It is not part of the test standard procedure to record radiant flux values above 900mm.

Observations (min: sec)

Run No.	Smoking	Melting	Ignition
1	4:26	3:19	5.0
2	4:18	3:09	5.0
3	4:33	3:12	5.0

The average critical flux was N/A cm² and the standard deviation was N/A

The coefficient of variation was N/A.



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This report contains a total of three pages.

Servando Romo

Project Manager

<u>February 6, 2006</u>

Reviewed and approved:

C. Anthony Peñaloza

Flammability Testing Team Leader

February 6, 2006

