

**CLIENT:** University of Miami  
1251 Memorial Drive  
MEB 308, Coral Gables, FL 33146

On behalf of Fortress Stabilization Systems

<b>Test Report No: TJ4114-1</b>	<b>Date: September 13, 2016</b>
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**SAMPLE ID:** The client identified the following test material as “FSS-CFL-ITF-001”

**SAMPLING DETAIL:** Test samples were submitted to the laboratory directly by the client. No special sampling conditions or sample preparation were observed by QAI.

**DATE OF RECEIPT:** Samples were received at QAI facilities on July 29, 2016

**TESTING PERIOD:** August 29, 2016

**AUTHORIZATION:** Signed work order 16SP062401

**TEST REQUESTED:** Perform standard flame spread and smoke density developed classification tests on the sample supplied by the Client in accordance with ASTM Designation E84-16, "Standard Method of Test for Surface Burning Characteristics of Building Materials". The foregoing test procedure is comparable to UL 723, ANSI/NFPA No. 255, and UBC No. 8-1.

<b>TEST RESULTS:</b>	<u>Flame Spread</u>	<u>Smoke Developed</u>
	10	70

**CLASSIFICATION:** The material results could not be classified. Detailed test results are presented in the subsequent pages of this report.

**Prepared By**



Daniel Barnett  
Project Engineer

**Signed for and on behalf of  
QAI Laboratories, Inc.**



J. Brian McDonald  
Operations Manager

**PREPARATION AND CONDITIONING:** The sample was submitted in six 4 foot long panels measuring 4 1/4" at 3 wide and approximately .0785" thick. The sample material was placed into conditioning at 73°F (±5°F) and 50% (±5%) relative humidity until day of testing.

**E 84 TEST DATA SHEET:**

**MOUNTING METHOD:** The sample was self-supporting and the foam was exposed to the burner flames. The samples were butted end to end in the test chamber, with cement board place between the lid and sample.

**CLIENT:** University of Miami    **DATE:** July 29, 2016

**SAMPLE:** FSS-CFL-ITF-001

**IGNITION:** 0 minutes, 47 seconds

**FLAME FRONT:** 6 feet maximum

**TIME TO MAXIMUM SPREAD:** 09 minutes, 30 seconds

**TEST DURATION:** 10 minutes, 00 seconds

**SUMMARY: FLAME SPREAD:** 10 (12.2 unrounded)      **SMOKE DEVELOPED:** 70 (71 unrounded)

**OBSERVATIONS:**

Sample began smoking 25 seconds into the test followed by crackling at 30 seconds. Ignition occurred at 47 seconds and slowly spread. The flame propagation spread to window 6 at 9 minutes 30 seconds and remained at that point until test end. After burn could be seen at test end and had to be extinguished by the technician.

**CALIBRATION DATA:**

Time to Ignition of Last Red Oak (sec):	34
Red Oak Smoke Area (%A*Min):	117.2
Total Fuel Burned (ft <sup>3</sup> )	55.0

**SUMMARY OF ASTM E84 RESULTS:**

Because of the possible variations in reproducibility, the results are adjusted to the nearest figure divisible by 5. Smoke Density values over 200 are rounded to the nearest figure divisible by 50.

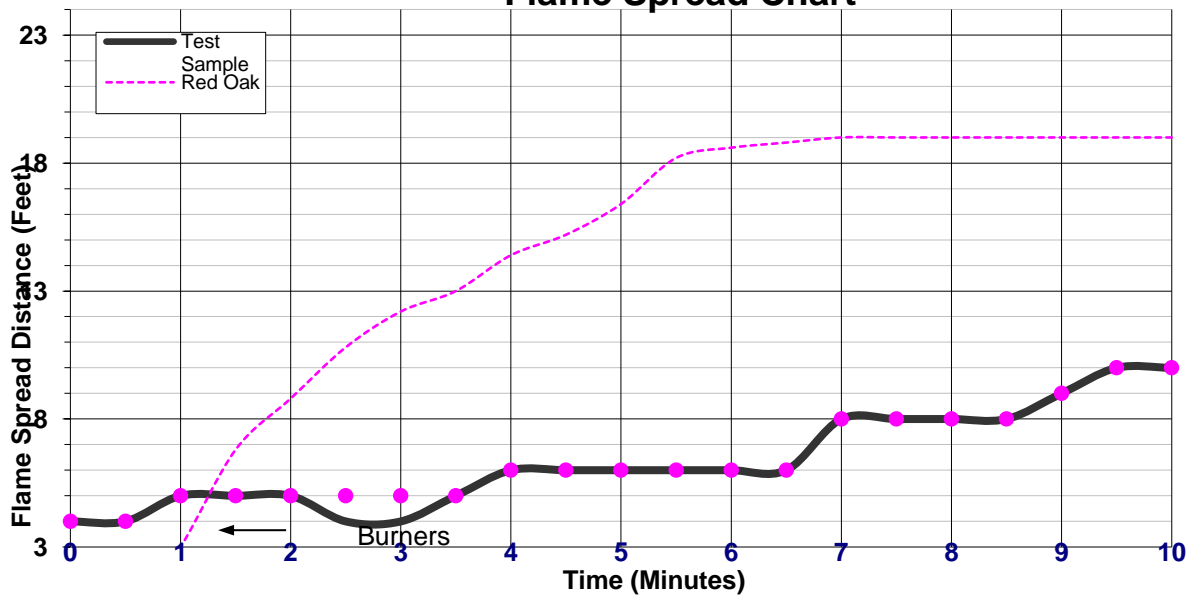
In order to obtain the Flame Spread Classification, the above results should be compared to the following table:

<u>NFPA CLASS</u>	<u>IBC CLASS</u>	<u>FLAME SPREAD</u>	<u>SMOKE DEVELOPED</u>
A	A	0 through 25	Less than or equal to 450
B	B	26 through 75	Less than or equal to 450
C	C	76 through 200	Less than or equal to 450

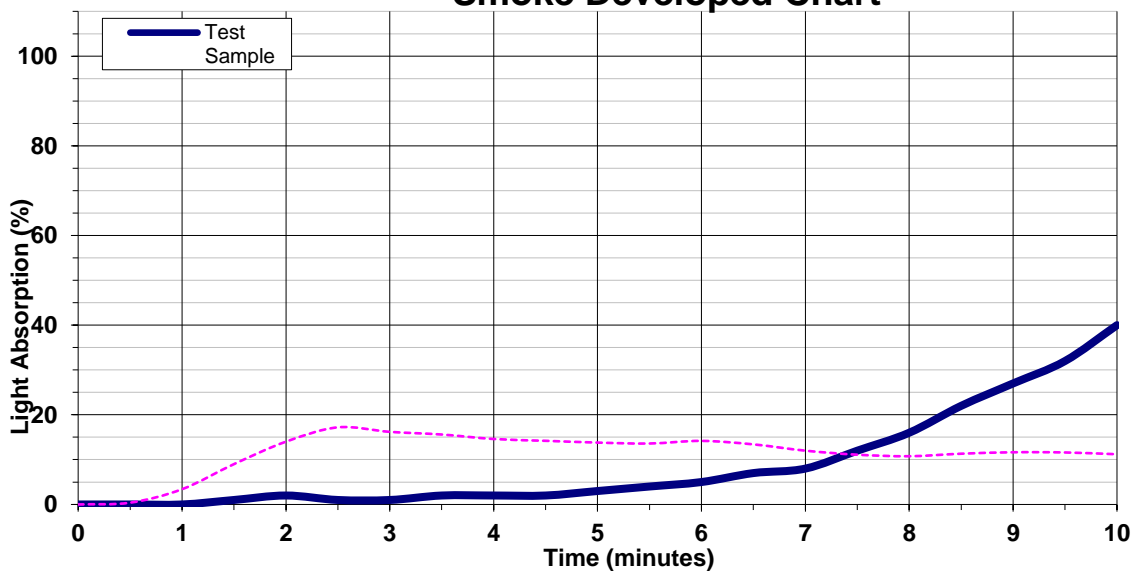
**BUILDING CODES CITED:**

1. National Fire Protection Association, ANSI/NFPA No. 101, "Life Safety Code", 2006 Edition.
2. International Building Code, 2006 Edition, Chapter 8, Interior Finishes, Section 803.

### Flame Spread Chart

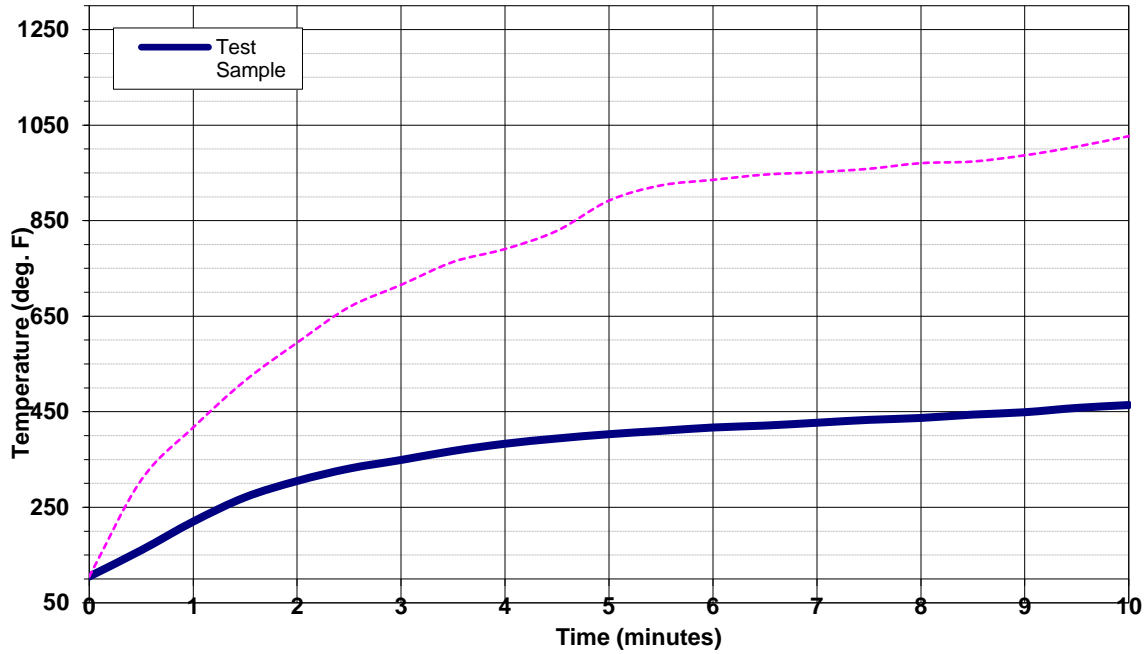


### Smoke Developed Chart



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### Temperature - Time Curve



**\*\*\*END OF TEST REPORT\*\*\***