

**CLIENT:** CRANE COMPOSITES  
8015 Dixon Dr  
Florence KY, 41042

**Test Report No: TJ2056**

**Date: April 9, 2014**

**SAMPLE ID:** The Client submitted and identified the following test material as “**FSQF .090.**”

**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 March 31, 2014

**TESTING PERIOD:** April 3, 2014

**AUTHORIZATION:** Signed work order by Michelle Bauer

**TEST REQUESTED:** Perform standard flame spread and smoke density developed classification tests on the sample supplied by the Client in accordance with ASTM Designation E84-12, "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.

**TEST RESULTS:**

<u>Flame Spread</u>	<u>Smoke Developed</u>
50	350

**CLASSIFICATION:** The material tested resulted in a Class B. Detailed test results are presented in the subsequent pages of this report

**Prepared By**

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



Jeff Foster  
Fire Test Technician



J. Brian McDonald  
Operations Manager



**PREPARATION AND CONDITIONING:** The sample was submitted in six panels that were 4 feet long measuring 24 inches wide and approximately .090 inch 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 supported during testing by 2" hexagonal mesh poultry netting running the length of the test chamber and ¼" round metal rods placed at 2' intervals across the width of the test chamber, with cement board place between sample and tunnel lid.

**CLIENT:** CRANE COMPOSITES **DATE:** April 9, 2014

**SAMPLE:** FSQF.090

**IGNITION:** 0 minutes, 45 seconds

**FLAME FRONT:** 12 feet maximum

**TIME TO MAXIMUM SPREAD:** 3 minutes, 00 seconds

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

**SUMMARY: FLAME SPREAD:** 50 (50.6 unrounded)      **SMOKE DEVELOPED:** 350 (335 unrounded)

**OBSERVATIONS:**

Audible crackling could be heard at 42 seconds into the test, followed by charring at 43 seconds and sustained ignition at 45 seconds. Significant flame spread up to window 12 early into test. After burn was witnessed at conclusion of the test.

**CALIBRATION DATA:**

Time to Ignition of Last Red Oak (sec):	57
Red Oak Smoke Area (%A* Min):	111
Total Fuel Burned (ft <sup>3</sup> )	59.68



**SUMMARY OF ASTM E84 RESULTS:**

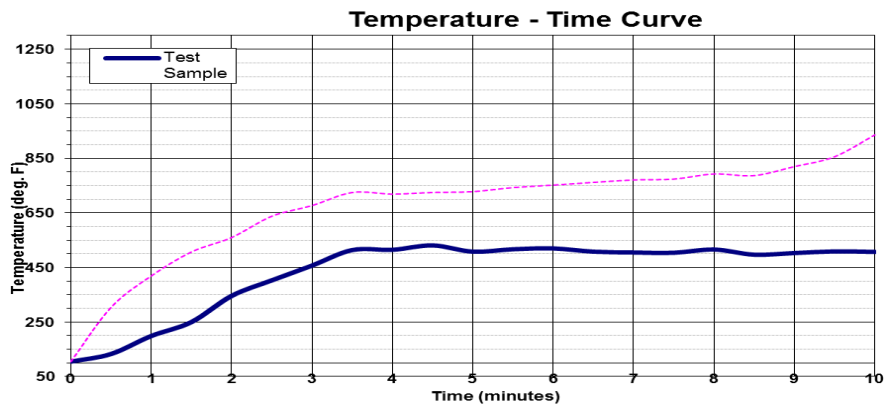
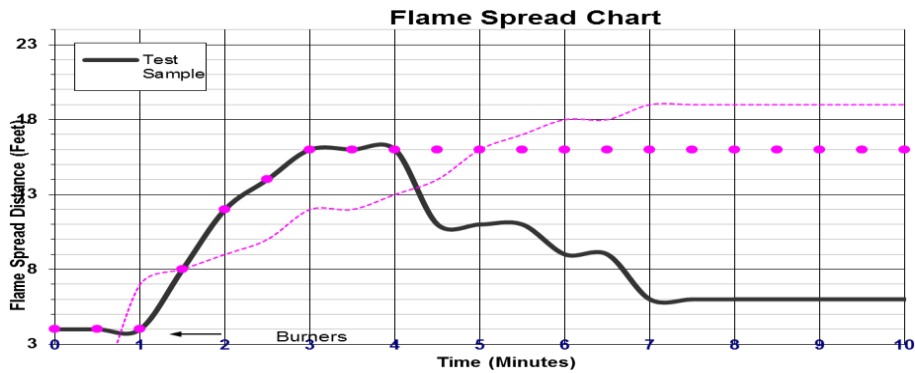
Because of the possible variations in reproducibility, the results are adjusted to the nearest figure divisible by 5. Smoke Density values over 200 are rounded to the nearest figure divisible by 50.

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.



**END OF REPORT**

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