

CLIENT: CRANE COMPOSITES
Attn: Mike Buhr
23525 W. Eames Street
Channahon, IL 60410

Test Report No: TJ1114

Date: February 21, 2013

SAMPLE ID: The Client submitted and identified the following test material as “**Kemply-3mm ACP, Single Sided FSI, wall and ceiling panel**”

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 February 15, 2013

TESTING PERIOD: February 20, 2013

AUTHORIZATION: Proposal FB012913-4 signed by Mike Buhr on January 30, 2013

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>
	20	250

Detailed test results are presented in the subsequent pages of this report

Prepared By

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



David Bauchmoyer
Fire Test Technician



J. Brian McDonald
Operations Manager



PREPARATION AND CONDITIONING: The sample was submitted in six 4 foot long panels cut to measure 21 inches wide and approximately 0.2210 inches 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.

CLIENT: Crane Composites **DATE:** February 20, 2013

SAMPLE: Kemply-3mm ACP, Single Sided FSI, wall and ceiling panel

IGNITION: 1 minutes, 00 seconds

FLAME FRONT: 5 feet maximum

TIME TO MAXIMUM SPREAD: 5 minutes, 30 seconds

TEST DURATION: 10 minutes, 00 seconds

SUMMARY: FLAME SPREAD: 20 (18 unrounded)

SMOKE DEVELOPED: 250 (241 unrounded)

OBSERVATIONS:

Steady ignition occurred at one minute after ignition. Sample started peeling at one minute and soon after charring was noted. Sample began to bubble at around 2 minutes and flaming droplets were noted at 6 minutes and 30 seconds. Sample showed glowing and flaming after test which was extinguished by technician.

CALIBRATION DATA:

Time to Ignition of Last Red Oak (sec):	45
Red Oak Smoke Area (%A*Min):	112
Maximum Temperature (°F):	497
Time to Maximum Temperature (min:sec):	9:30
Total Fuel Burned (ft ³)	55.03



SUMMARY OF ASTM E84 RESULTS:

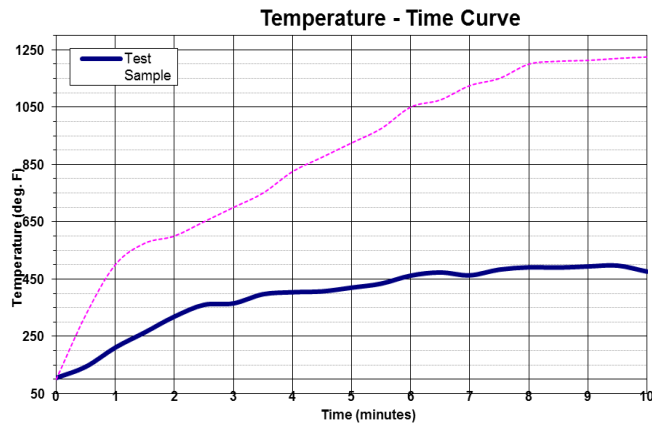
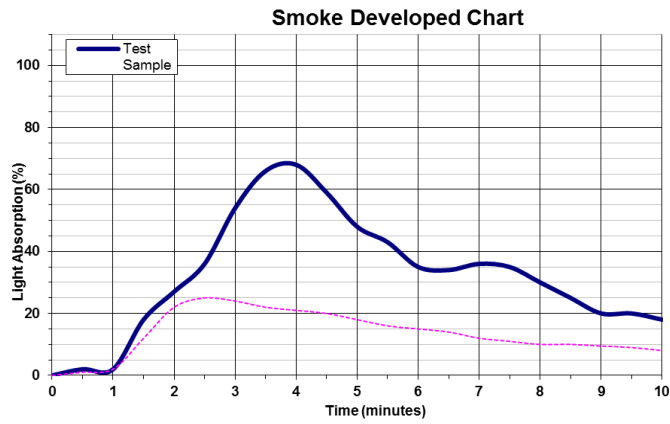
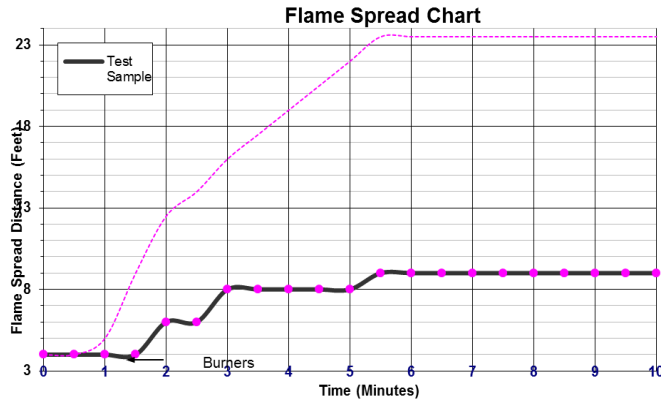
Because of the possible variations in reproducibility, the results are adjusted to the nearest figure divisible by 5. Smoke Density values over 200 are rounded to the nearest figure divisible by 50.

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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