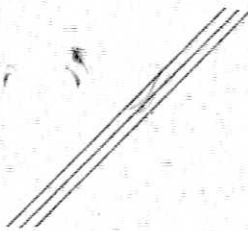




Fire Testing Laboratory



TEST REPORT

For

Crane Composites, Incorporated

8500 C. W. Post Road
Jonesboro. AR 72401

Surface Burning Characteristics of Building Materials

ASTM E - 84-10

Test Report No: FH-2150

Assignment No: H-776

Test Date: 11/22/2010

Report Date: 11/30/2010

Subject Material: J 1560-3 - .085 FRP

Prepared by:

Richard A. Costolnick
Senior Test engineer

Reviewed by:

Robert J. Menchetti
Director, Laboratory Facilities
and Testing Services

The results reported in this document apply to specific samples submitted for measurement. No responsibility is assumed for performance of any other specimen. This report may not be reproduced, except in full, without the written approval of the laboratory. The laboratory's test reports in no way constitutes or implies product certification, approval or endorsement by this laboratory.



MATERIAL TESTED:

Material submitted by Crane Composites, Inc., Jonesboro, AR, was identified and described by the client as:

J 1560.3 - .085 FRP sheet

The material was provided in 2 ft. wide x 4 ft. lengths.

The tests were conducted by placing the material in the furnace end to end, and butted tightly together to achieve the required 24 lineal feet.

METHOD OF SUPPORT:

A continuous length of 2.0 in. hexagonal poultry netting was placed atop 1/4" diameter steel rods spaced 24 in. on center. The test samples were placed over the netting, end to end, and butted tightly together to achieve the required 24 lineal feet

LID PROTECTION:

1/4 in. thick non-combustible fiber reinforced cement board was placed over the test specimen as lid protection.

RESULTS:

The results can be found on page 3 of this report.

RESULTS:

| <u>TEST NO.</u> | <u>MATERIAL TESTED</u> | <u>SIDE EXPOSED</u> | <u>SUPPORT</u> | <u>CALCULATED FLAME SPREAD</u> | <u>CALCULATED SMOKE DEVELOPED</u> |
|-----------------|------------------------|---------------------|----------------|------------------------------------|---------------------------------------|
| 1 | J 1560.3 - .085 FRP | SYMMETRICAL | WIRE & RODS | 128.95 | 343.01 |



| <u>MATERIAL TESTED</u> | <u>SIDE EXPOSED</u> | <u>SUPPORT</u> | <u>FLAME SPREAD INDEX*</u> | <u>SMOKE DEVELOPED INDEX*</u> |
|-------------------------|---------------------|----------------|--------------------------------|-----------------------------------|
| RED OAK FLOORING | FINISH | DECKS | 100 | 100 |
| REINFORCED CEMENT BOARD | SYMMETRICAL | SELF | 0 | 0 |
| J 1560.3 - .085 FRP | SYMMETRICAL | WIRE & RODS | 128.95 | 343.01 |

| <u>CLASSIFICATION</u> | <u>FSI</u> | <u>SDI</u> |
|-----------------------|------------|-------------|
| CLASS "A" | 0-25 | 450 or less |
| CLASS "B" | 26-75 | 450 or less |
| CLASS "C" | 76-200 | 450 or less |

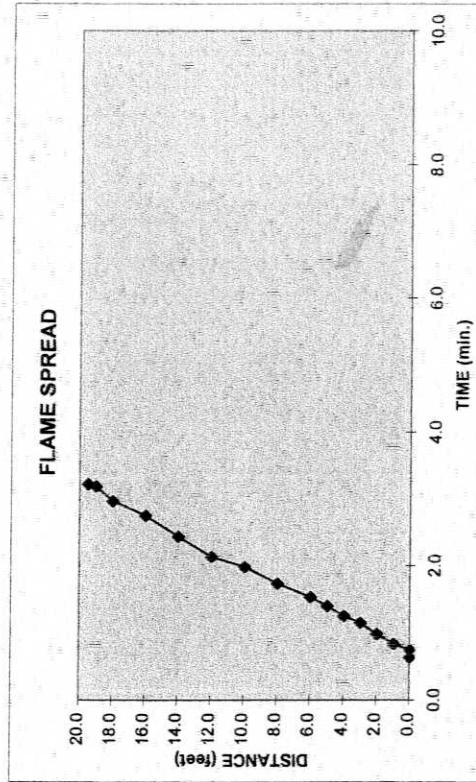
* Flame Spread/Smoke Developed Index is the result (or average of the results of multiple tests), rounded to the nearest multiple of 5. Smoke Developed in excess of 200, rounded to the nearest 50.



Fire Testing Laboratory

ADC DRAFT (IN. H2O) 0.080
 GAS PRESS. (IN. H2O) 0.293
 GAS VOL. (CF) 49.88
 BTU/cf 1008
 SHUTTER 3"
 TEMP. 13' BURIED 105°F

FLAME SPREAD- 128.95
AREA UNDER THE CURVE (min.-ft.) 157.00
SMOKE DEVELOPED- 343.01



DATE 11/22/2010

TEST #: FH-2150

TEST METHOD: ASTM E-84-10

CLIENT: CRANE COMPOSITES

PROJECT #: H-776

SAMPLE: J 1560-3-085

FRP SHEET

METHOD OF SUPPORT: WIRE & RODS

REMARKS: IGNITION: 0:38

MAX. FLAME FRONT 19.5FT. @ 3:13

| # | TIME (Min.) | TIME (Sec.) | DISTANCE (Ft.) |
|----|-------------|-------------|----------------|
| 1 | 0 | 38 | 0.0 |
| 2 | 0 | 45 | 0.0 |
| 3 | 0 | 50 | 1.0 |
| 4 | 0 | 59 | 2.0 |
| 5 | 1 | 9 | 3.0 |
| 6 | 1 | 15 | 4.0 |
| 7 | 1 | 24 | 5.0 |
| 8 | 1 | 32 | 6.0 |
| 9 | 1 | 44 | 8.0 |
| 10 | 1 | 59 | 10.0 |
| 11 | 2 | 8 | 12.0 |
| 12 | 2 | 26 | 14.0 |
| 13 | 2 | 45 | 16.0 |
| 14 | 2 | 58 | 18.0 |
| 15 | 3 | 11 | 19.0 |
| 16 | 3 | 13 | 19.5 |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| 20 | | | |

WITNESSED BY: *[Signature]*

