

CLIENT: LATICRETE INTERNATIONAL, INC.
91 Amity Road
Bethany, CT 06542

Test Report No: TJ4639-R1	Date: April 17, 2017
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SAMPLE ID: The client identified the following test material as “HYDRO BAN Board ½” (12.5mm)”

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 27, 2017

TESTING PERIOD: April 10, 2017

AUTHORIZATION: Signed work order 17SP032002 signed by Jay Conrod

TEST REQUESTED: Perform standard flame spread and smoke density developed classification tests on the sample supplied by the Client in accordance with ASTM Designation E84-15, "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>
	5	105

CLASSIFICATION: The material results in a class “A” rating. 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 panels measuring a total of 24 feet long, 24 inches wide, and approximately ½ an inch thick. The HYDRO BAN Board was tiled using a 12"x24" Porcelain Tile installed using 254 PLATINUM with a ¼"x3/8" square notch trowel and grouted with PERMACOLOR Grout using a 1/8" grout joint. 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 using two inch hexagonal mesh poultry netting running the length of the test chamber and ¼" round metal rods were placed at 2' intervals across the width of the test chamber. The samples were placed with the face side exposed to the burner flames, butted end to end in the test chamber, and with cement board place between the lid and sample.

CLIENT: Laticrete International, Inc. **DATE:** April 10, 2017

SAMPLE: HYDRO BAN Board ½" (12.5mm)

IGNITION: 5 minutes, 30 seconds

FLAME FRONT: 1 foot maximum

TIME TO MAXIMUM SPREAD: 5 minutes, 30 seconds

TEST DURATION: 10 minutes, 00 seconds

SUMMARY: **FLAME SPREAD:** 5 (2.5 unrounded) **SMOKE DEVELOPED:** 105 (106 unrounded)

OBSERVATIONS:

The material did not react in any notable way for the first 5 minutes of the test. At 5 minutes, a tile on the panel closest to the burner fell to the tunnel floor. The sample ignited where the fallen tile had been at 5 minutes 30 seconds. The flame front reached the Number 1 window at 9 minutes. Nothing of note occurred for the remainder of the test.

CALIBRATION DATA:

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

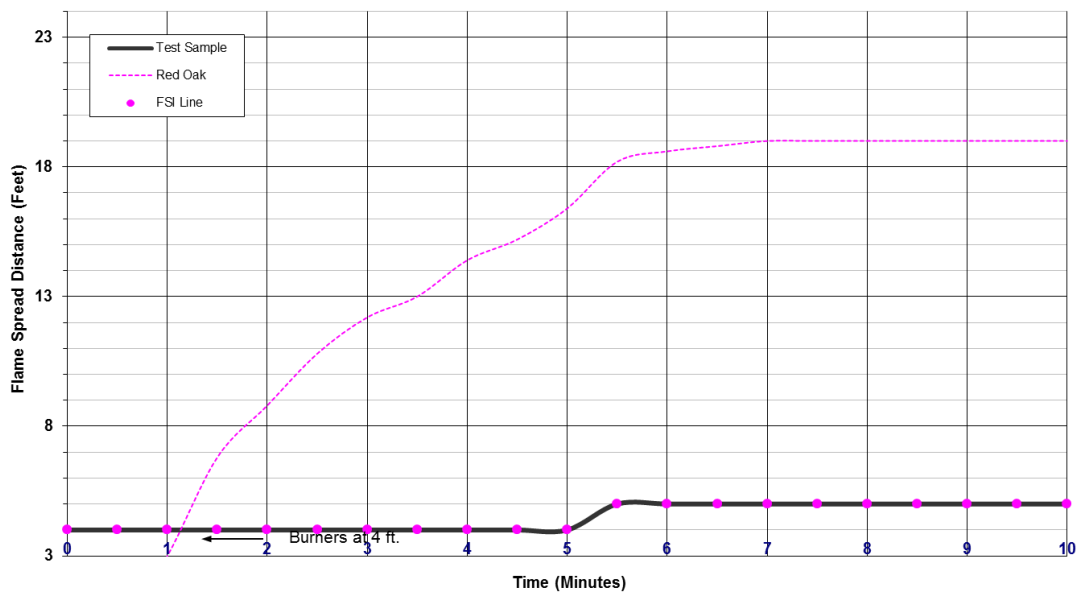
<u>NFPA CLASS</u>	<u>IBC CLASS</u>	<u>FLAME SPREAD</u>	<u>SMOKE DEVELOPED</u>
A	A	0 through 25	Less than or equal to 450
B	B	26 through 75	Less than or equal to 450
C	C	76 through 200	Less than or equal to 450

BUILDING CODES CITED:

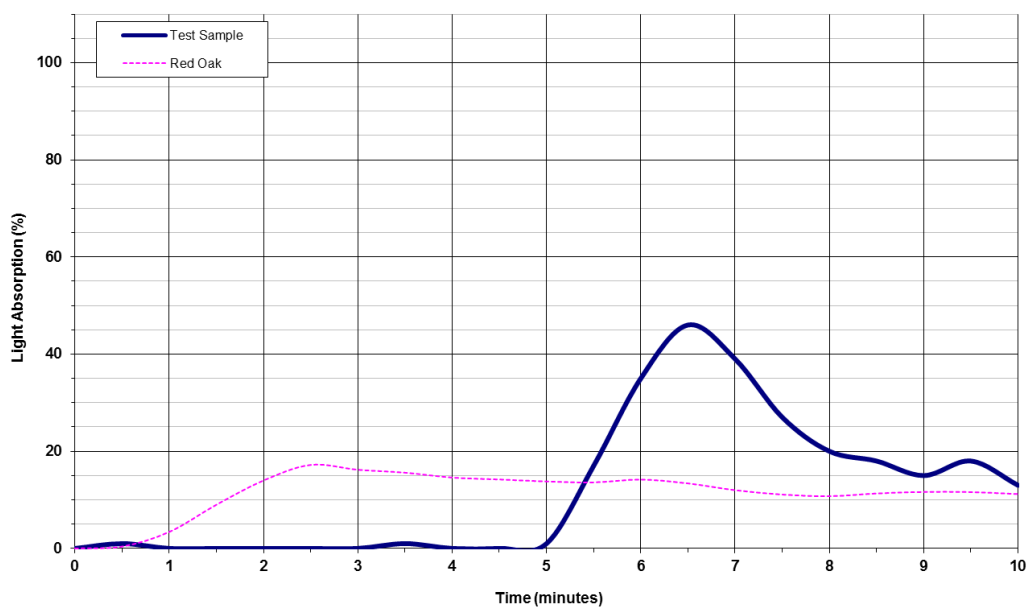
1. National Fire Protection Association, ANSI/NFPA No. 101, "Life Safety Code", 2006 Edition.
2. International Building Code, 2006 Edition, Chapter 8, Interior Finishes, Section 803.

Graphical Data

Flame Spread Chart

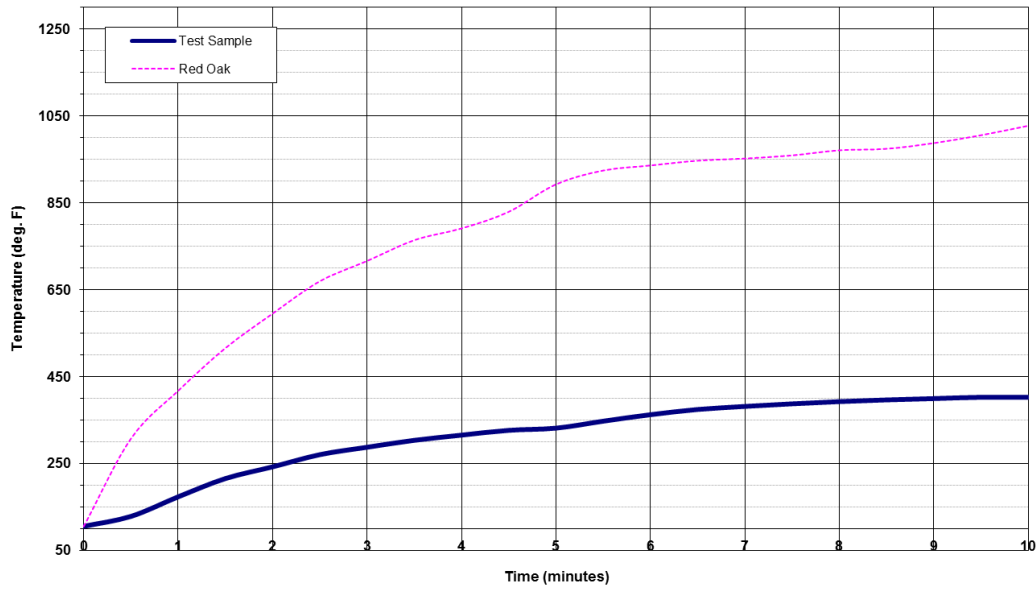


Smoke Developed Chart



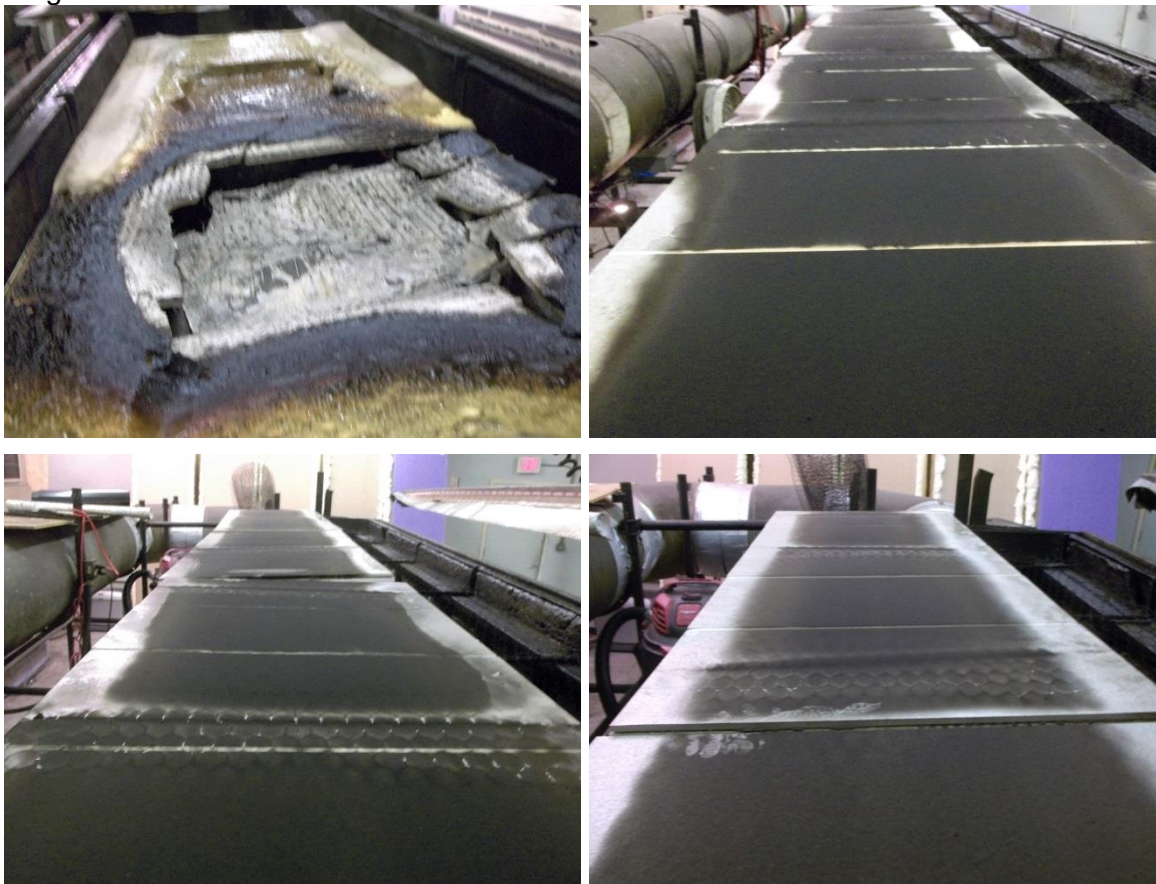
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Temperature - Time Curve



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Post Test Images



Revision History

Revision Date: April 17, 2017

The Sample ID was changed from “Hydro Ban” to “HYDRO BAN Board ½” (12.5mm)”.

In the Preparation and Conditioning section, the following was added: “The HYDRO BAN Board was tiled using a 12”x24” Porcelain Tile installed using 254 PLATINUM with a ¼”x3/8” square notch trowel and grouted with PERMACOLOR Grout using a 1/8” grout joint.”.

This report TJ4639-R1 supersedes and replaces any previous reports under the name TJ4639.

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

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