

CLIENT: SUSTAINABLE FLOORING

4390 Pali Way
Boulder, CO 80301

Test Report No: RJ3689-1	Date: December 11, 2014
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SAMPLE ID: The test samples are identified as: Strandwoven Timber Panels-Treated with Fire Retardant and Urethane top coat finish.

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 on November 26, 2014.

TESTING PERIOD: December 9, 2014.

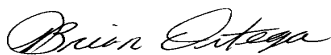
AUTHORIZATION: Testing authorized by Andy Gale.

TEST REQUESTED: Perform standard flame spread and smoke density developed classification tests on the sample supplied by the Client in accordance with ASTM Designation E84-14, "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	200*

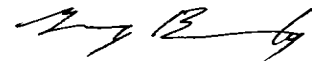
Detailed test results are presented in the subsequent pages of this report.

Prepared By



Brian Ortega
Test Technician

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



Greg Banasky
Senior Test Technician

PREPARATION AND CONDITIONING: The sample material was submitted in four pieces, 24" wide by 6' feet long conforming to test chamber dimensions.

CONDITIONING: The test specimen was conditioned to a constant weight at a temperature of $73.4 \pm 5^{\circ} \text{F}$ ($23 \pm 2.8^{\circ} \text{C}$) and a relative humidity of $50 \pm 5 \%$.

CEMENT BOARD PLACEMENT: The 1/4" cement boards were placed between the test specimen and the chamber lid.

E 84 TEST DATA SHEET:

CLIENT: SUSTAINABLE FLOORING Date: 12-9-2014

SAMPLE: Strandwoven Timber Panels-Treated with Fire Retardant and Urethane top coat finish.

FLAME SPREAD:

IGNITION: 1 minute, 40 seconds.

FLAME FRONT: 19 1/2 Feet.

TIME TO MAXIMUM SPREAD: 7 minutes, 22 seconds.

TEST DURATION: 8 minutes

CALCULATION: $4900/(195-99.44) = 51.28$

Observations: Surface charring, peeling and pieces falling to the floor.

SUMMARY: FLAME SPREAD: 50 **SMOKE DEVELOPED:** 200 * (218.63).

* Note: Due to sample delamination that blocked the air flow through the chamber, the test was terminated at 8 minutes. Had the test continued for the normal 10 minute period, the flame spread value would have remained unchanged. The smoke developed number is the smoke value at time of termination.

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.

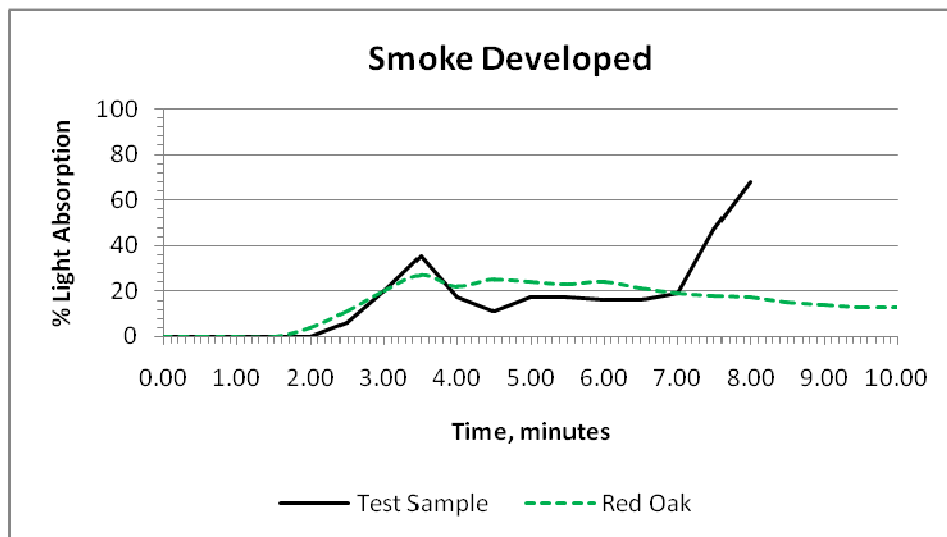
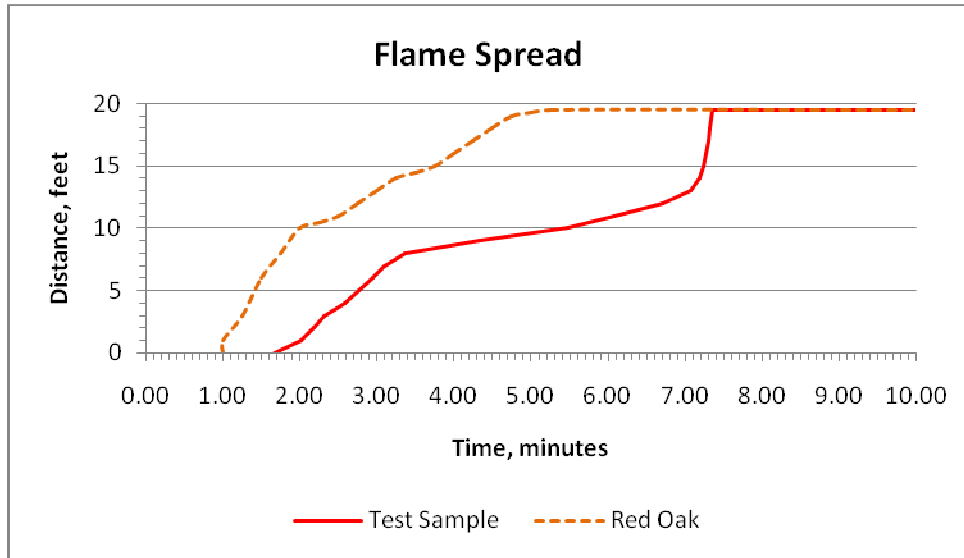
In order to obtain the Flame Spread Classification, the above results should be compared to the following table:

<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".
2. International Building Code, Chapter 8, Interior Finishes, Section 803.

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End of Test