

CLIENT: SOELBERG INDUSTRIES
248 S. Mountain Way Dr.
Orem, UT 84058

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|---------------------------------|---------------------------|
| Test Report No: RJ3850-4 | Date: May 20, 2015 |
|---------------------------------|---------------------------|

SAMPLE ID: The test samples are identified as: Muto ½”.

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 May 7, 2015.

TESTING PERIOD: May 20, 2015.

AUTHORIZATION: Testing authorized by Matthew Hodjera.

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.

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|----------------------|----------------------------|-------------------------------|
| TEST RESULTS: | <u>Flame Spread</u> | <u>Smoke Developed</u> |
| | 25 | 250* |

*See note on page 2.

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

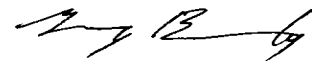
CONCLUSION: The submitted material meets the requirements for a “Class A” Flame Spread. See classification requirements on page 2.

Prepared By



Brian Ortega
Test Technician

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



Greg Banasky
Senior Technician

PREPARATION: The sample material was submitted in twelve pieces 24" wide by 24" long conforming to test chamber dimensions. The sample was supported during testing by 2" hexagonal mesh poultry netting running the length of the test chamber and 1/4" round metal rods placed at two foot intervals across the width of the test chamber

CONDITIONING: The test specimen was conditioned to a constant weight at a temperature of $73.4 \pm 5^{\circ}$ F ($23 \pm 2.8^{\circ}$ C) and a relative humidity of 50 ± 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: BARESQUE AUSTRALIA PTY LTD **DATE:** 05/20/15

SAMPLE: Muto 1/2"

IGNITION: 33 seconds.

FLAME FRONT: 19 1/2 feet maximum.

TIME TO MAXIMUM SPREAD: 8 minutes, 8 seconds

TEST DURATION: 8 minutes, 20 seconds

CALCULATION: $48.51 \times 0.515 = 24.98$

SUMMARY: FLAME SPREAD: 25 **SMOKE DEVELOPED:** 250*

* Note: Due to heat production and loss of air flow through the chamber, the test was terminated at 8 minutes, 20 seconds. Had the test continued for the normal 10 minute period, the flame spread value would have remained unchanged. The laboratory plotted the smoke developed value for the remaining 1 minute, 40 seconds at 0% transmittance and derived a final Smoke Developed value of 227.

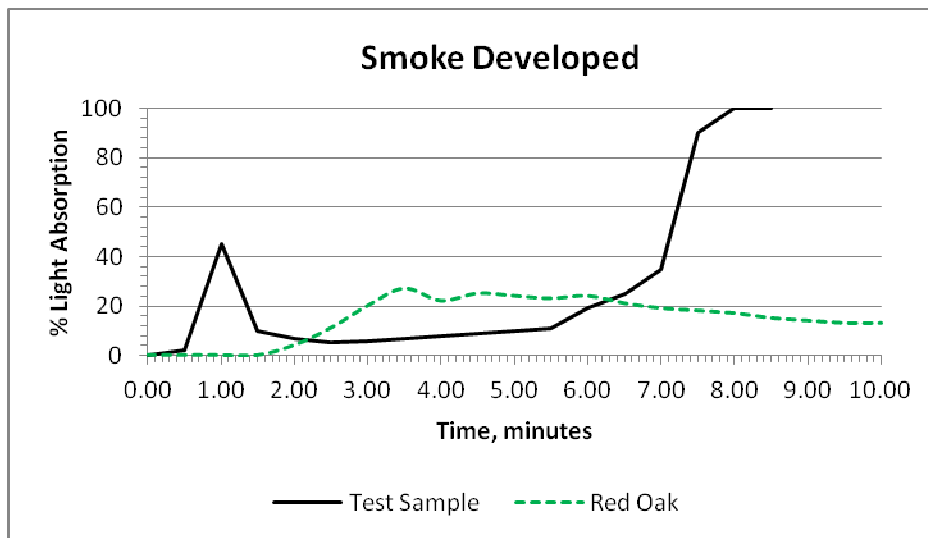
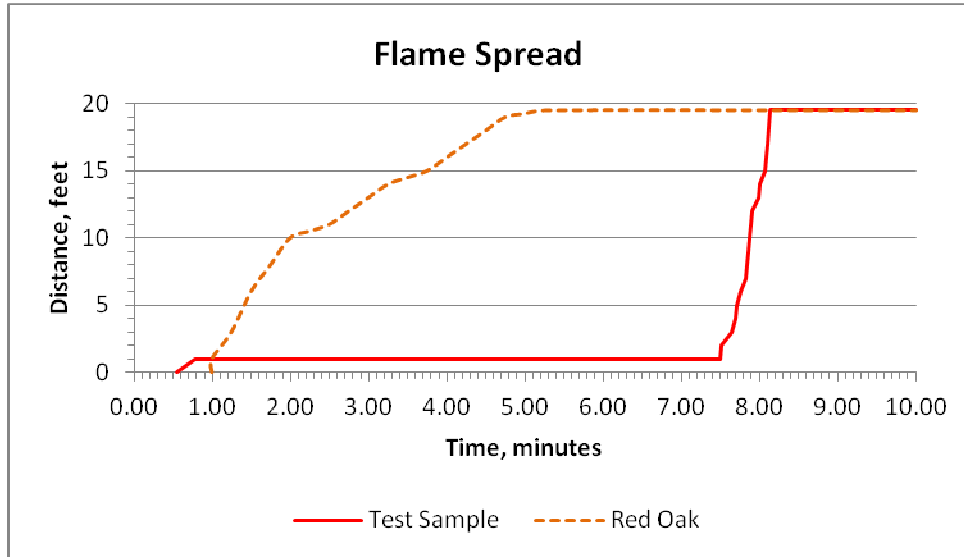
SUMMARY OF ASTM E84 RESULTS: Because of the possible variations in reproducibility, the results are adjusted to the nearest figure divisible by 5. Smoke Density values over 200 are rounded to the nearest figure divisible by 50.

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.



End of Report