QAI LABORATORIES
CERTIFICATION TESTING INSPECTION

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CLIENT: **LIGHTBLOCKS INC**
Attn: Michael Samborn
164 Burke Street
Nashua, NH 03060

Test Report No: TJ1009-1	Date: January 11, 2013

SAMPLE ID: The Client submitted and identified the following test material as "**1/8" Polycarbonate (HB) – Custom Color – matte with resin surface finish – Wall Covering, Ref: PO# 1482 – SO# 2656-1-1"**.

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 December 12, 2012

TESTING PERIOD: January 10, 2013

AUTHORIZATION: Purchase Order #1482 submitted on December 4, 2012

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:

Flame Spread	Smoke Developed
40	350

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

Prepared By

Gregory Ertel
Fire Test Technician

Signed for and on behalf of QAI Laboratories, Inc.

J. Brian McDonald
Operations Manager

PREPARATION AND CONDITIONING: The sample was submitted and tested in three 8 foot long panels measuring 21 inches wide and approximately 0.125 inches thick. The sample material was placed into conditioning at 73ºF (±5ºF) 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: Lightblocks **DATE:** January 10, 2013

SAMPLE: 2656-1-1

IGNITION: 1 minutes, 13 seconds

FLAME FRONT: 16 feet maximum

TIME TO MAXIMUM SPREAD: 5 minutes, 30 seconds

TEST DURATION: 10 minutes, 00 seconds

SUMMARY: FLAME SPREAD: 40 (38.8 unrounded) **SMOKE DEVELOPED:** 350 (366 unrounded)

OBSERVATIONS:

Steady ignition occurred 1 minute 13 seconds after burner was ignited. Material began bubbling at 42 seconds into test soon followed by sagging of material at 50 seconds after ignition. Charring then began 1 minute 3 seconds into test. At the point of ignition flaming dripping occurred simultaneously. Considerable to near all material near burner involved in flames 2 minutes into test. At 3 minutes and 40 seconds most of the floor of the tunnel was flaming. Flame and smoke died down after about 5 minutes into test. Flames were noted on tunnel floor immediately after test cessation which was ultimately extinguished by the technicians.

CALIBRATION DATA:

Time to Ignition of Last Red Oak (sec):	45
Red Oak Smoke Area (%A*Min):	112
Maximum Temperature (ºF):	582
Time to Maximum Temperature (min:sec):	7:30
Total Fuel Burned (ft^3)	55.04

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:

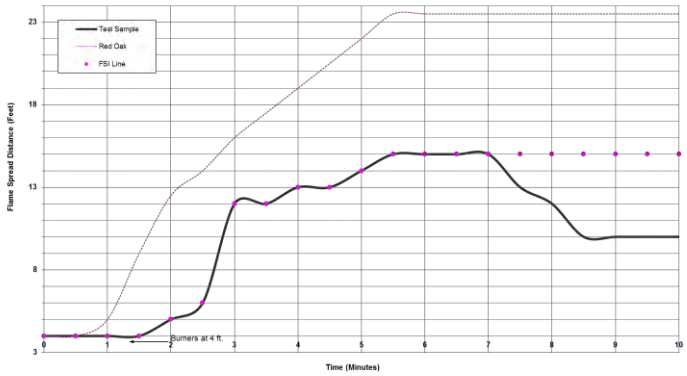
NFPA CLASS	IBC CLASS	FLAME SPREAD	SMOKE DEVELOPED
A	A	0 through 25	Less than or equal to 450
B	B	26 through 75	Less than or equal to 450
C	C	76 through 200	Less than or equal to 450

BUILDING CODES CITED:

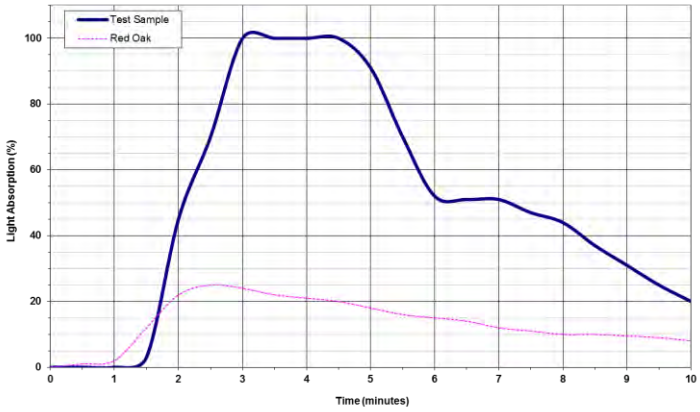
1. National Fire Protection Association, ANSI/NFPA No. 101, "Life Safety Code", 2006 Edition.

2. International Building Code, 2006 Edition, Chapter 8, Interior Finishes, Section 803.

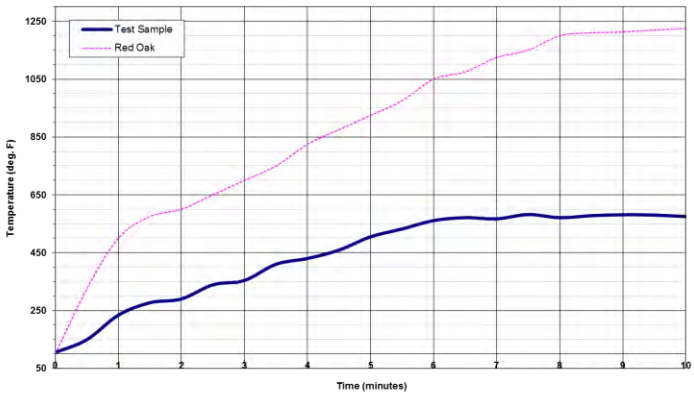
Flame Spread Chart



Smoke Developed Chart



Temperature - Time Curve



END OF REPORT