

CLIENT: **SOFT CHEMICAL CO.**
63, Geumhoseonmal-gil, Bugang-myeon
Sejong-si
Republic of Korea

Test Report No: TJ5233

Date: January 19, 2018

SAMPLE ID: The client identified the following test material as **“ACRYLIC SOLID SURFACE / MATERIAL: ATH, PMMA”**

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 November 28, 2017

TESTING PERIOD: December 8, 2017

AUTHORIZATION: Proposal 17SP112101 approved on November 21, 2017

SGS REF. NUMBER: AYAA17-61875

TEST REQUESTED: Perform standard flame spread and smoke density developed classification tests on the sample supplied by the Client in accordance with ASTM Designation E84-17, "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	20

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 samples were submitted in 10 30 inch long panels measuring 20 inches wide and .5 inch thick. The sample material was placed into conditioning at 73°F ($\pm 5^\circ\text{F}$) and 50% ($\pm 5\%$) relative humidity until day of testing.

E 84 TEST DATA SHEET:

MOUNTING METHOD: The sample was self-supporting with the solid surface exposed to the burner flames. The samples were butted end to end in the test chamber, with cement board place between the lid and sample.

CLIENT: SOFT CHEMICAL CO. **DATE:** December 8, 2017

SAMPLE: ACRYLIC SOLID SURFACE / MATERIAL: ATH, PMMA

FLAME FRONT: 3 foot maximum

TIME TO MAXIMUM SPREAD: 9 minutes, 30 seconds

TEST DURATION: 10 minutes, 00 seconds

SUMMARY: FLAME SPREAD: 5 (4.2 unrounded)

SMOKE DEVELOPED: 20 (15 unrounded)

CALIBRATION DATA:

Time to Ignition of Last Red Oak (sec):	39
Red Oak Smoke Area (%A*Min):	111.0
Total Fuel Burned (ft ³)	61.0

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.

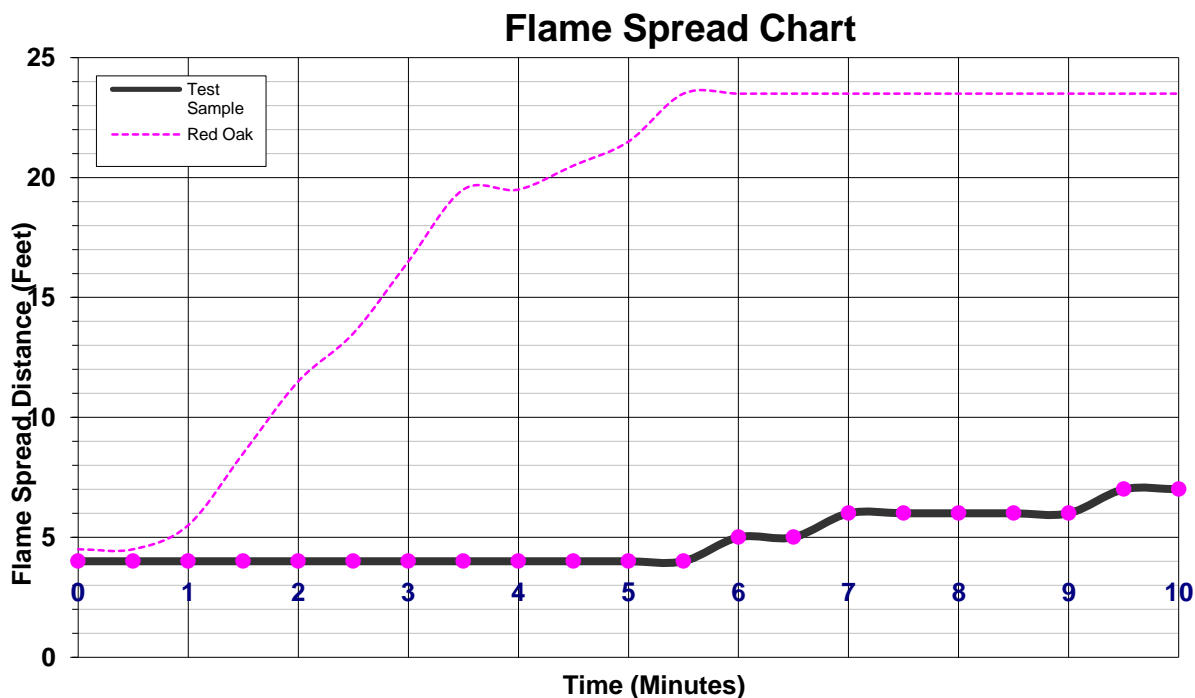
In order to obtain the Flame Spread Classification, the above results should be compared to the following table:

<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.

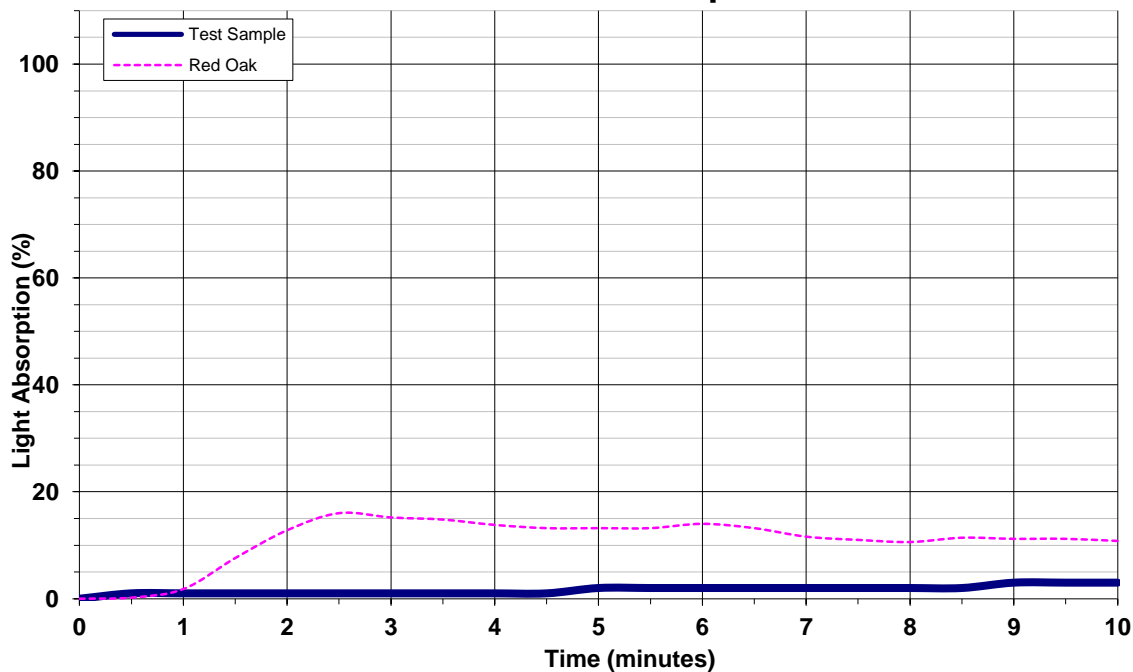
Graphical Data



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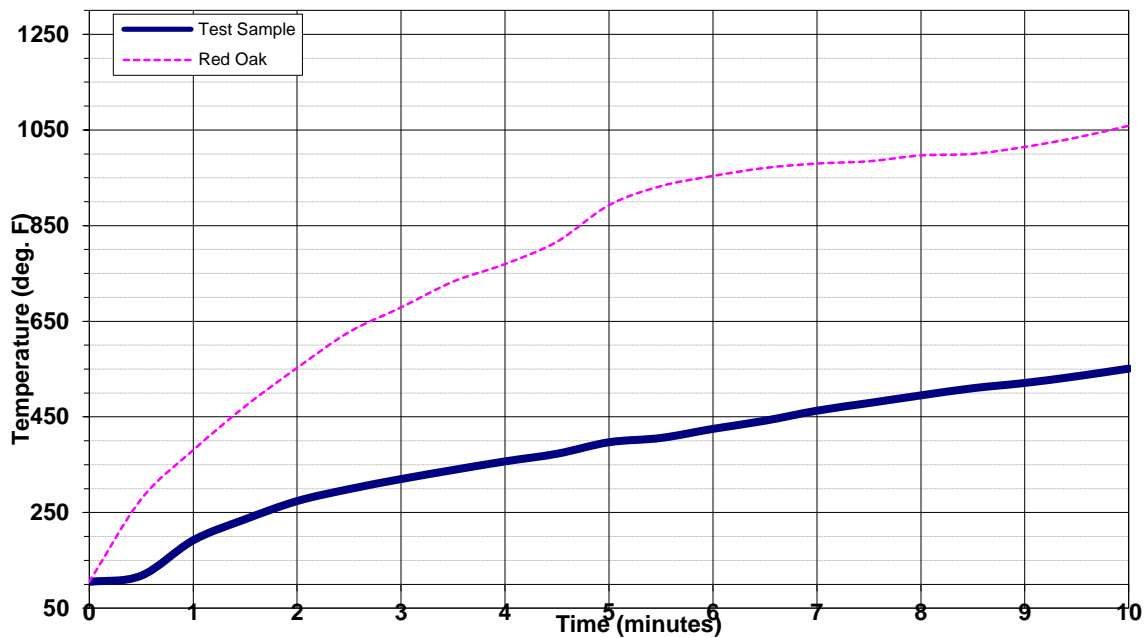
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Smoke Developed Chart



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Temperature - Time Curve



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Post Test Images



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

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