QAI LABORATORIES
CERTIFICATION TESTING INSPECTION

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CLIENT: **CRANE COMPOSITES**
23525 W Eames St.
Channahon, IL 60410

Test Report No: TJ3811	Date: May 26, 2016

SAMPLE ID: The client identified the following test material as **"GLASBORD CGI"**

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 May 3, 2016

TESTING PERIOD: May 24, 2016

AUTHORIZATION: Signed work order 16VB04181

TEST REQUESTED: Perform standard flame spread and smoke density developed classification tests on the sample supplied by the Client in accordance with CAN/ULC S102-10, **"**Method of Test for Surface Burning Characteristics of Building Materials and Assemblies".

TEST RESULTS:

Flame Spread Rating	Smoke Developed Classification
30	250

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

Prepared By

Jeff Foster
Fire Test Technician

Signed for and on behalf of
QAI Laboratories, Inc.

J. Brian McDonald
Operations Manager

PREPARATION AND CONDITIONING: The sample was submitted in six panels 4 feet long measuring 24 inches wide and approximately .080" thick. The sample material was placed into conditioning at 73ºF (±5ºF) and 50% (±5%) relative humidity until day of testing.

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, with cement board place between the sample and tunnel lid.

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

TEST RESULTS:	**Flame Spread Values**	**Smoke Developed Values**
Test No. 1	31.8	248
Test No. 2	30.9	274
Test No. 3	34.4	280
Average	**32.3**	**267.3**

Rounded Average Flame Spread Rating (FSR): 30

Rounded Average Smoke Developed Classification (SDC): 250

CAN/ULC S102-10 TEST DATA SHEET: (Test 1)

CLIENT: Crane Composites **DATE:** May 26, 2016

SAMPLE: Glasbord CGI

IGNITION: 0 minutes, 58 seconds

FLAME FRONT: 8 feet maximum

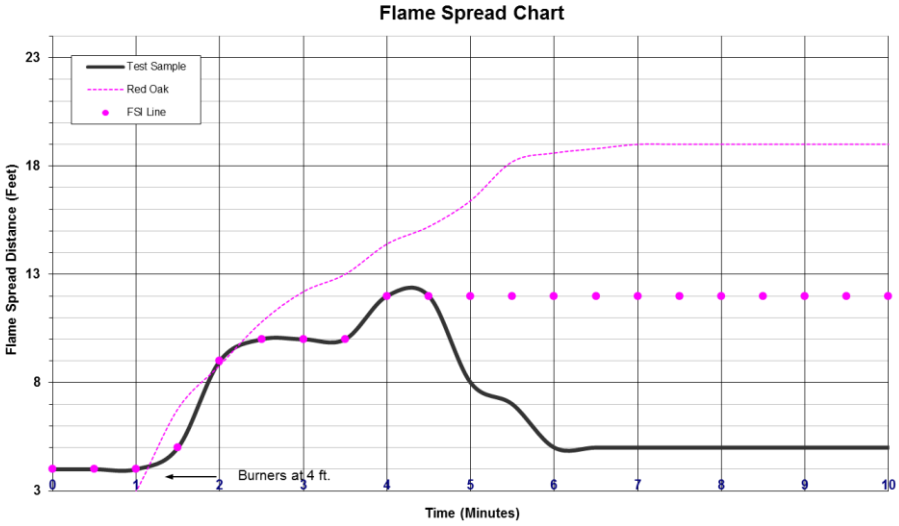
TIME TO MAXIMUM SPREAD: 4 minutes, 00 seconds

TEST DURATION: 10 minutes, 00 seconds

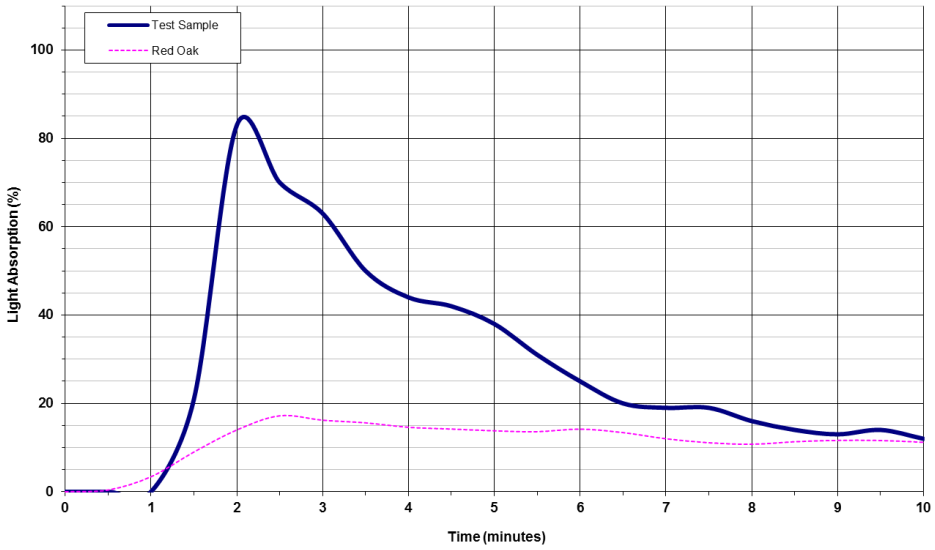
SUMMARY: FLAME SPREAD: 31.8 **SMOKE DEVELOPED:** 248

OBSERVATIONS:

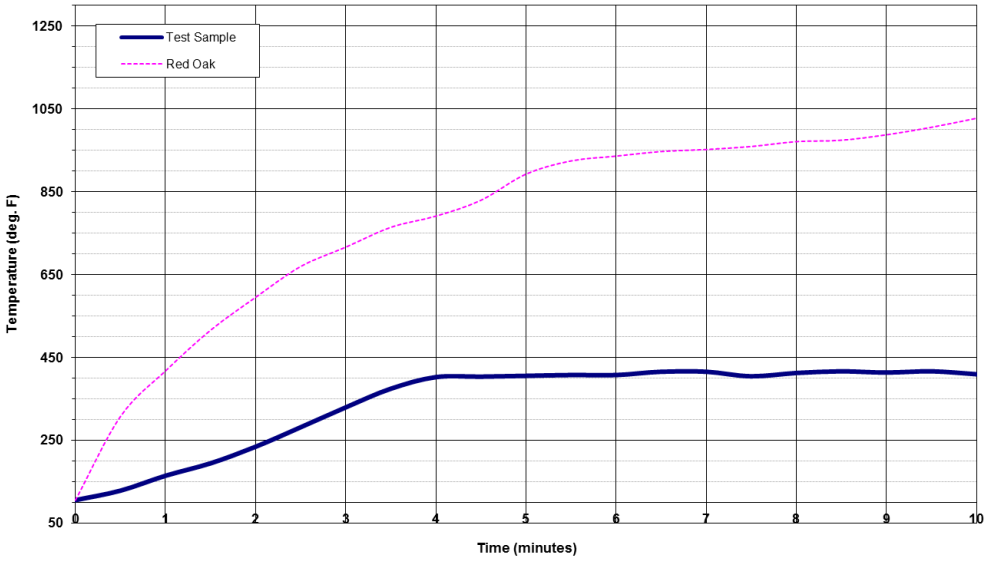
Sustained ignition was at 58 seconds. Flame spread was slow and had reached 8 feet at 4 minutes before regressing. Moderate smoke was seen during the test. After burn was witnessed at the conclusion of the ten minute test and self-extinguished.



Smoke Developed Chart



Temperature - Time Curve



CAN/ULC S102-10 TEST DATA SHEET: (Test 2)

CLIENT: Crane Composites **DATE:** May 26, 2016

SAMPLE: Glasbord CGI

IGNITION: 0 minutes, 55 seconds

FLAME FRONT: 7 feet maximum

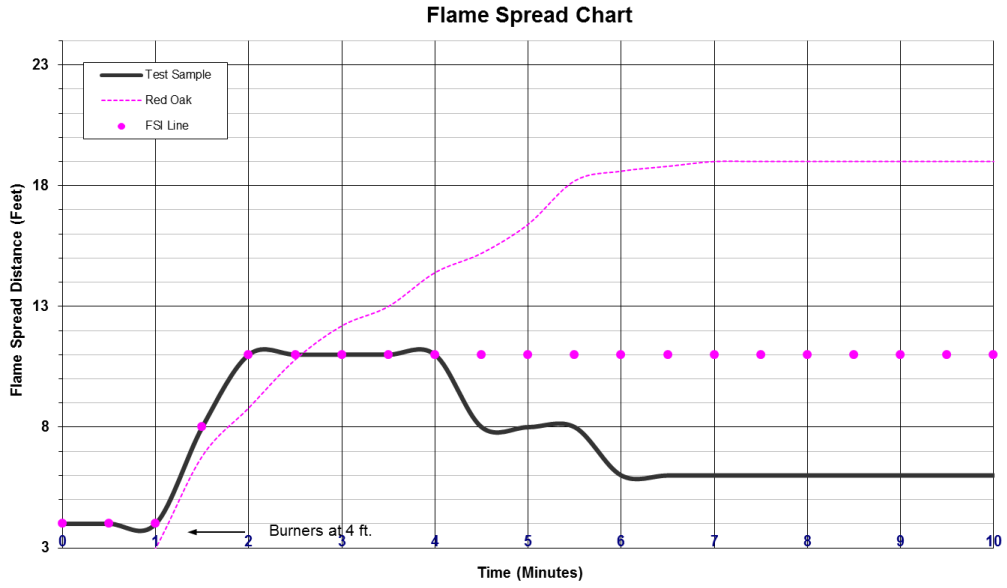
TIME TO MAXIMUM SPREAD: 2 minutes, 00 seconds

TEST DURATION: 10 minutes, 00 seconds

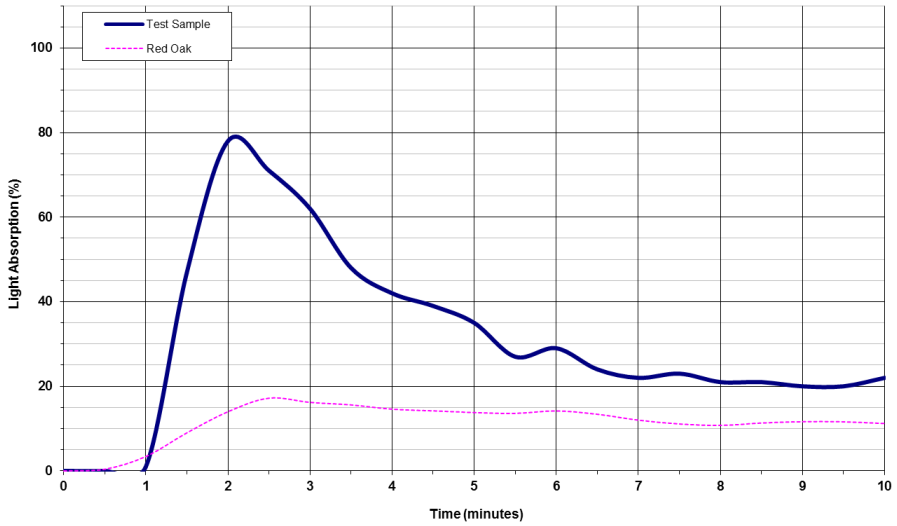
SUMMARY: FLAME SPREAD: 30.9 **SMOKE DEVELOPED:** 274

OBSERVATIONS:

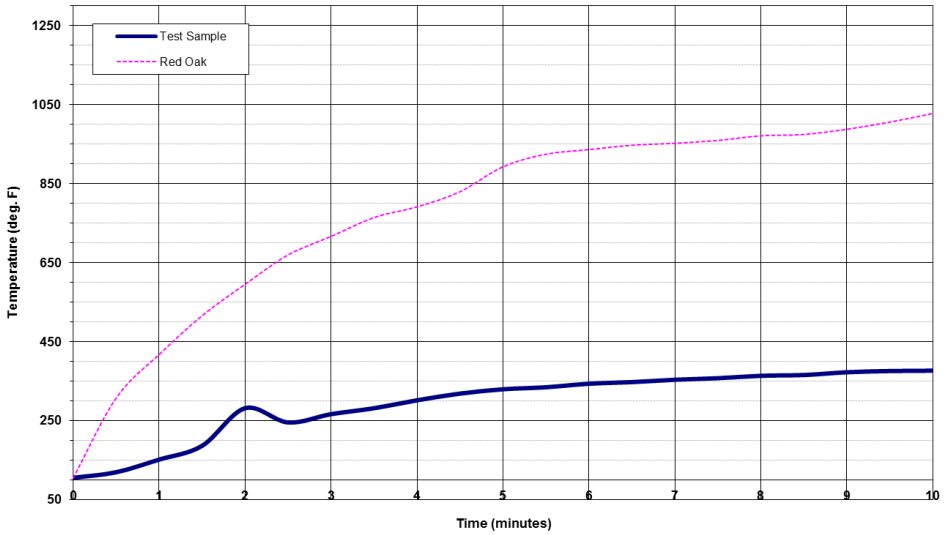
Sustained ignition was at 55 seconds. Flame spread was swift and had reached 7 feet at 2 minutes, before regressing. Moderate smoke was seen during the test. After burn was witnessed at the conclusion of the ten minute test and self-extinguished.



Smoke Developed Chart



Temperature - Time Curve



CAN/ULC S102-10 TEST DATA SHEET: (Test 3)

CLIENT: Crane Composites **DATE:** May 26, 2016

SAMPLE: Glasbord CGI

IGNITION: 0 minutes, 46 seconds

FLAME FRONT: 8 feet maximum

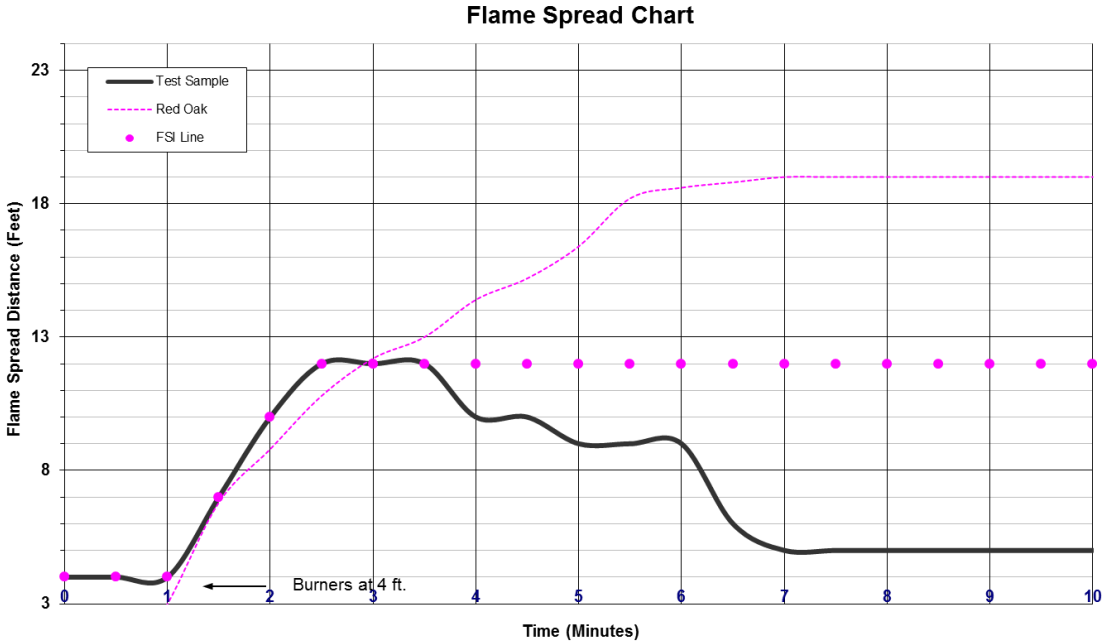
TIME TO MAXIMUM SPREAD: 2 minutes, 30 seconds

TEST DURATION: 10 minutes, 00 seconds

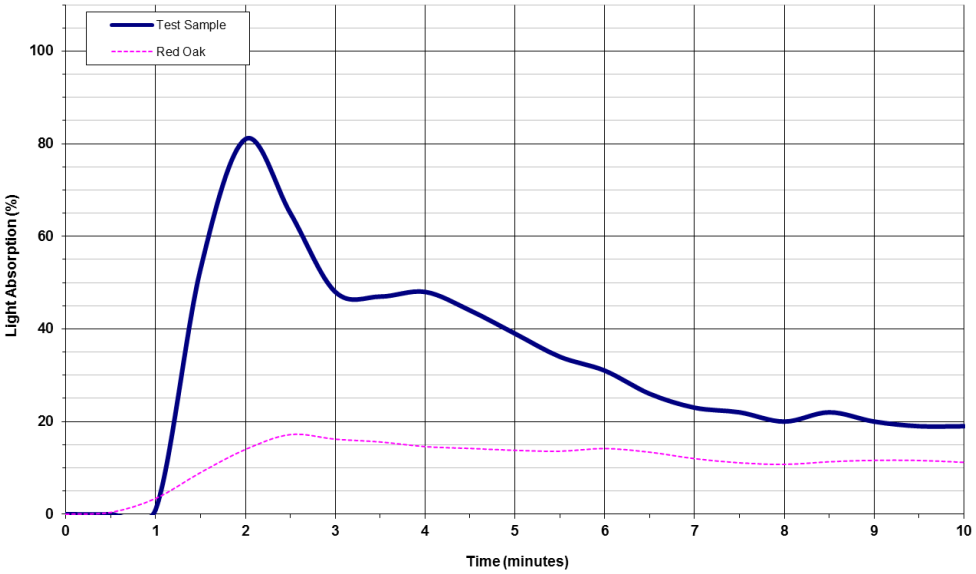
SUMMARY: **FLAME SPREAD:** 34.4 **SMOKE DEVELOPED:** 280

OBSERVATIONS:

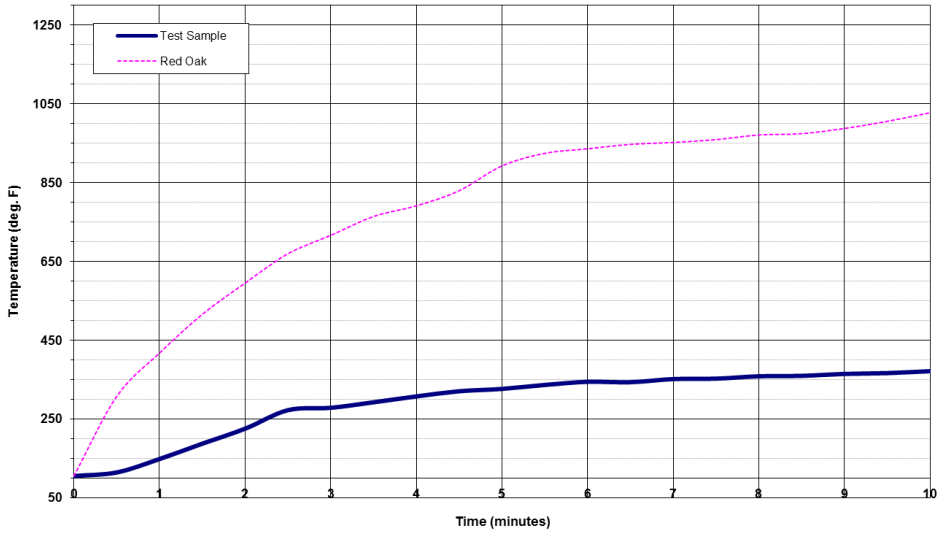
Sustained ignition was at 55 seconds. Flame spread was swift and had reached 8 feet at 2 minutes, before regressing. Moderate smoke was seen during the test. After burn was witnessed at the conclusion of the ten minute test and self-extinguished.



Smoke Developed Chart



Temperature - Time Curve



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