

CLIENT: CRANE COMPOSITES

23525 W. Eames St. Channahon, IL 60410

| Test Report No: TJ3315 | | Date: October 30, 2015 | |
|------------------------|--|-----------------------------------|--|
| SAMPLE ID: | The client identified the following test material as "GLASBORD FX 09" | | |
| 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 October 9, 2015 | | |
| TESTING PERIOD: | October 26, 2015 | | |
| AUTHORIZATION: | Signed work order VB-2015-092501 | | |
| 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 Ratii | ng Smoke Developed Classification | |
| | 10 | 30 | |

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.

1260 14

J. Brian McDonald **Operations Manager**



PREPARATION AND CONDITIONING: The sample was submitted in six panels 4 feet long measuring 24 inches wide and approximately 1.95 MM thick. The sample material was placed into conditioning at $73^{\circ}F$ (±5°F) 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.

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 |
|---------------|---------------------|------------|------------------------|
| т | est No. 1 | 15.9 | 35 |
| т | est No. 2 | 8.9 | 28 |
| т | est No. 3 | <u>9.4</u> | 27 |
| Д | verage | 11.4 | 30 |

Rounded Average Flame Spread Rating (FSR): 10

Rounded Average Smoke Developed Classification (SDC): 30



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

CLIENT: Crane Composites DATE: October 30, 2015

SAMPLE: Glasbord FX 09

IGNITION: 2 minutes, 07 seconds

FLAME FRONT: 5 feet maximum

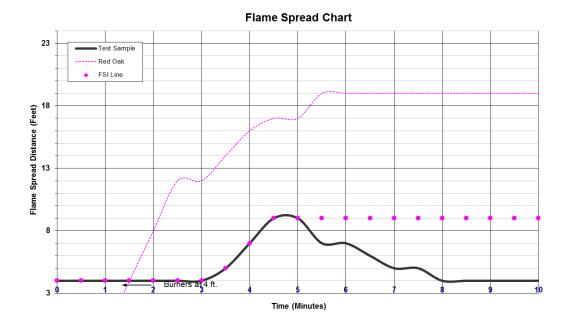
TIME TO MAXIMUM SPREAD: 4 minutes, 30 seconds

TEST DURATION: 10 minutes, 00 seconds

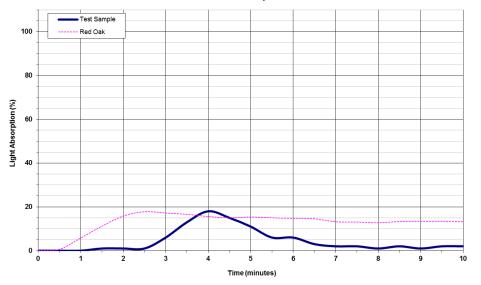
SUMMARY: FLAME SPREAD: 15.9 SMOKE DEVELOPED: 35

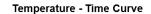
OBSERVATIONS:

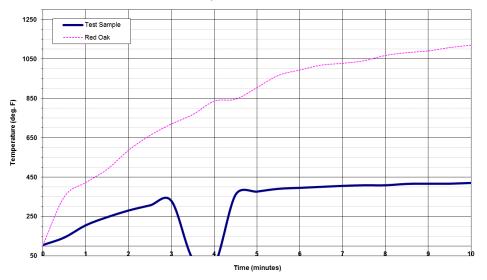
Crackling was heard at 30 seconds. Sustained ignition was seen at 2 minutes 07 seconds. Flame spread was slow and had reached 5 feet at 4 minutes 30 seconds with very light smoke. No after burn or afterglow at the conclusion of the ten minute test.



Smoke Developed Chart









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

CLIENT: Crane Composites DATE: October 30, 2015

SAMPLE: Glasbord FX 09

IGNITION: 2 minutes, 47 seconds

FLAME FRONT: 3 feet maximum

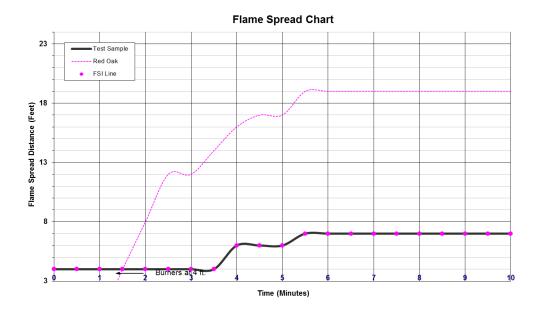
TIME TO MAXIMUM SPREAD: 5 minutes, 30 seconds

TEST DURATION: 10 minutes, 00 seconds

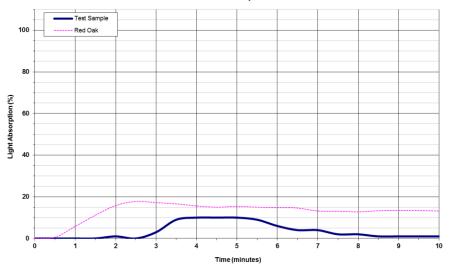
SUMMARY: FLAME SPREAD: 8.9 SMOKE DEVELOPED: 28

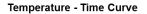
OBSERVATIONS:

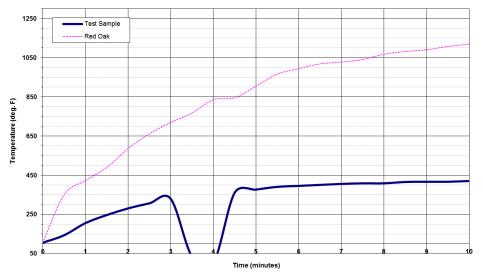
Crackling was heard at 51 seconds. Sustained ignition was seen at 2 minutes 47 seconds. Flame spread was slow and had reached three feet at 5 minutes 30 seconds with very light smoke. No after burn or afterglow at the conclusion of the ten minute test.



Smoke Developed Chart







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

CLIENT: Crane Composites DATE: September 3, 2015

SAMPLE: Glasbord FX 09

IGNITION: 2 minutes, 21 seconds

FLAME FRONT: 3 feet maximum

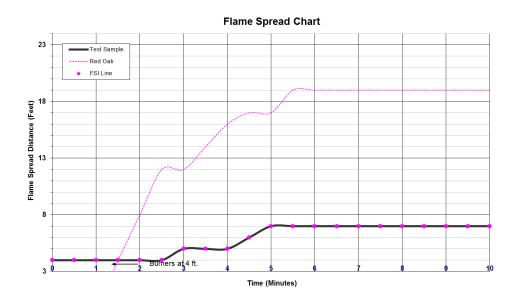
TIME TO MAXIMUM SPREAD: 5 minutes, 00 seconds

TEST DURATION: 10 minutes, 00 seconds

SUMMARY: FLAME SPREAD: 9.4 SMOKE DEVELOPED: 27

OBSERVATIONS:

Crackling was heard at 41 seconds. Sustained ignition was seen at 2 minutes 21 seconds. Flame spread was slow and had reached 3 feet at 5 minutes with very light smoke. No after burn or afterglow at the conclusion of the ten minute test.



Smoke Developed Chart

