



TEST REPORT

**CLIENT:** Polygal Inc.  
PO Box 410592  
Charlotte, NC 28241  
  
Attn: Mark Dailey

|                        |                   |              |                        |
|------------------------|-------------------|--------------|------------------------|
| <b>Test Report No:</b> | <b>2119202-15</b> | <b>Date:</b> | <b>August 18, 2010</b> |
|------------------------|-------------------|--------------|------------------------|

**SUBJECT:** Testing to ASTM E-84

**SAMPLE ID:** Sample identified as "16mm RFX Clear" was received from the client on 8/2/10 in good condition. The sample was described by the manufacturer of containing the following items:

- **Sample Description: 16mm RFX Clear**

**TEST REQUESTED:** Perform standard flame spread and smoke density developed classification tests on the sample supplied by the Client in accordance with ASTM Designation E84-09a, "Standard Method of Test for Surface Burning Characteristics of Building Materials". The test procedure is equivalent to UL 723, ANSI/NFPA No. 255, and UBC No. 8-1.

**PREPARATION:** The sample material was submitted and cut by the technician into three pieces, 21" wide by 8' long.

**TEST DATE:** 8/13/10

**RESULTS:** Results can be found on the following pages and apply only to the sample tested.

**CLASSIFICATION:** The sample received a **Class A** rating in accordance with the NFPA and IBC classification chart on page two of this report.

**SIGNED FOR AND ON BEHALF OF  
SGS U.S. TESTING COMPANY INC.**

KSM

  
Greg Ertel  
Engineering Technician

  
J. Brian McDonald  
Fire Technology Department Manager

**RESULTS:**

**SAMPLE:** 16mm RFX Clear

**TEST DATE:** 8/13/10

**DATA:**

|   |       |
|---|-------|
| <b><u>Ignition (minutes: seconds)</u></b>               | 0:30  |
| <b><u>Flame Front (feet)</u></b>                        | 4.0   |
| <b><u>Time to Maximum Spread (minutes: seconds)</u></b> | 10:00 |
| <b><u>Flame Spread</u></b>                              | 5     |
| <b><u>Smoke Developed</u></b>                           | 350   |

| <b><u>NFPA Class</u></b> | <b><u>IBC Class</u></b> | <b><u>Flame Spread</u></b> | <b><u>Smoke Developed</u></b> |
|--------------------------|-------------------------|----------------------------|-------------------------------|
| A                        | A                       | 0 through 25               | ≤ 450                         |
| B                        | B                       | 26 through 75              | ≤ 450                         |
| C                        | C                       | 76 through 200             | ≤ 450                         |

Total Test Time, (hr:min:sec): 0:10:00

**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

**Observations:**

- Sagging
- Dripping
- Shrinking
- Warping
- Flame Dripping
- Melting

GRAPHICAL RESULTS:

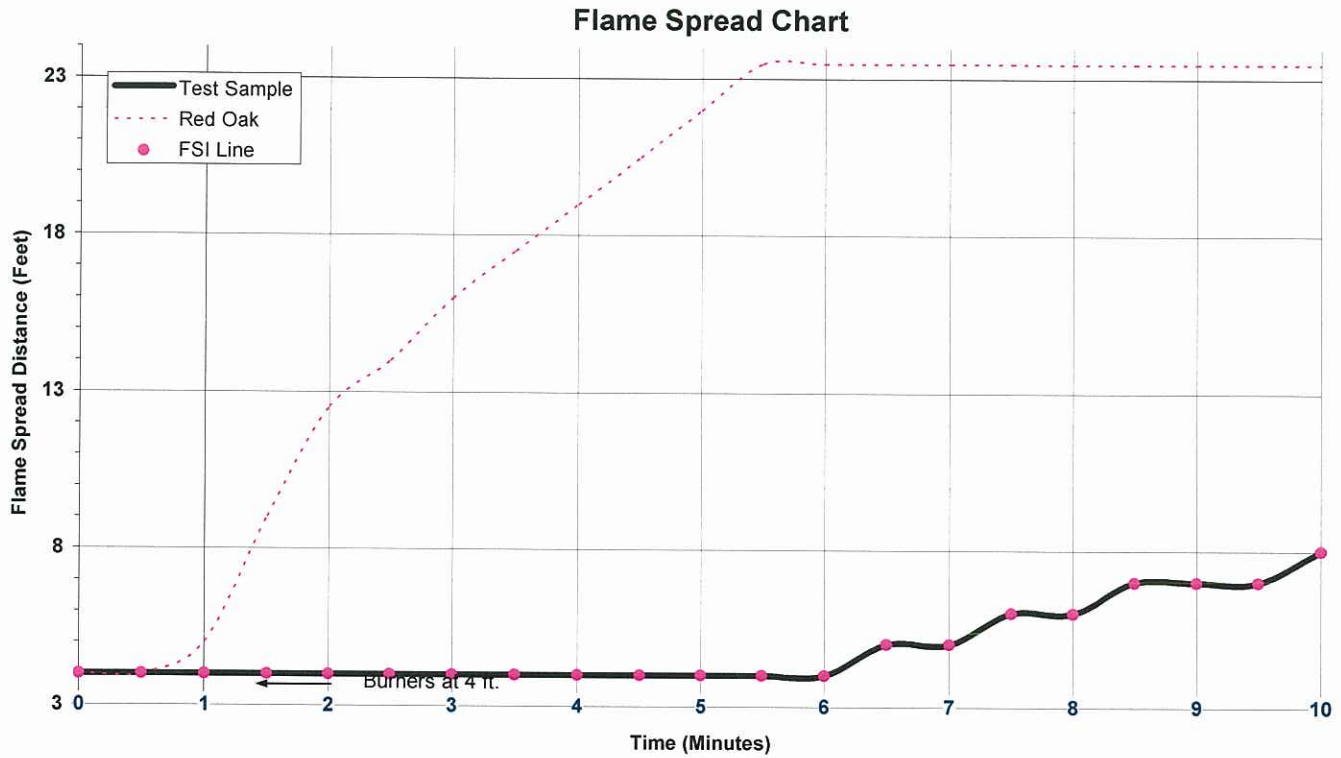


FIGURE 1. Flame Spread

GRAPHICAL RESULTS: (Cont.)

Smoke Developed Chart

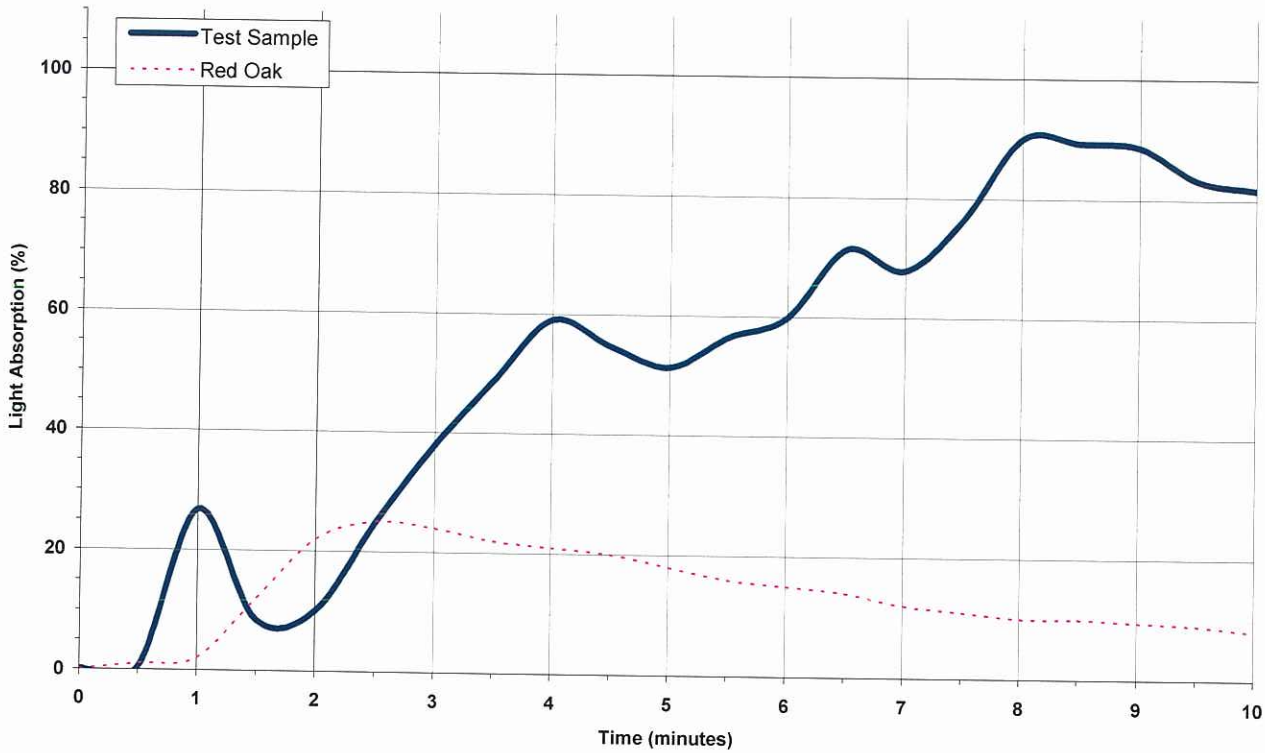


FIGURE 2. Smoke Developed

GRAPHICAL RESULTS: (Cont.)

Temperature - Time Curve

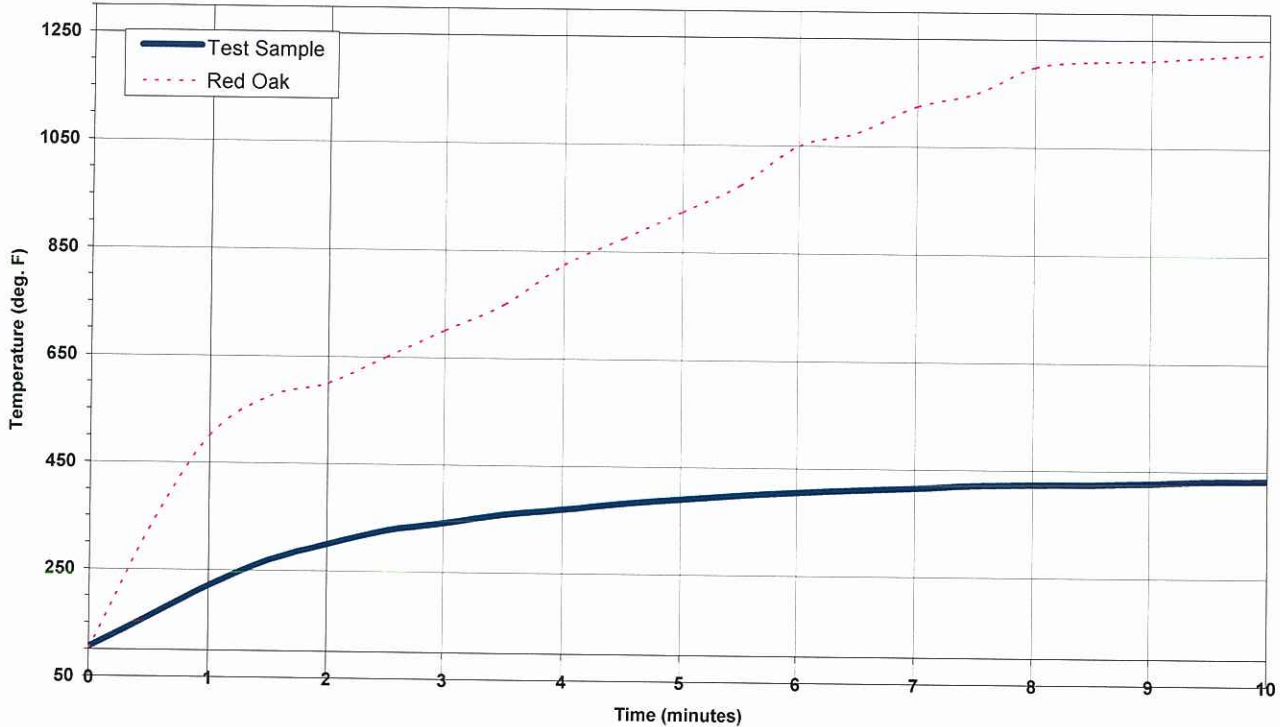


FIGURE 3. Temperature – 24 ft. Air Stream Thermocouple

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End of Report