

**CLIENT:** POLYGAL INC.  
1100 Bond St.  
Charlotte NC 28208

<b>Test Report No: TJ1980-4</b>	<b>Date: April 4, 2014</b>
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**SAMPLE ID:** The Client submitted and identified the following test material as “32MM SUPER THERMOGAL”.

**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 March 6, 2014

**TESTING PERIOD:** March 12, 2014

**AUTHORIZATION:** Signed Work Order by Mark Dailey

**TEST PROCEDURE:** 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.

<b>TEST RESULTS:</b>	<u>Flame Spread</u>	<u>Smoke Developed</u>
	60	300

**CLASSIFICATION:** The material tested resulted in a Class B. 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 three panels each 8 feet long, measuring 24 inches wide and approximately 32 mm thick. The sample material was placed into conditioning at 73°F (±5°F) and 50% (±5%) relative humidity until day of testing.

**E 84 TEST DATA SHEET:**

**MOUNTING METHOD:** The sample was self-supporting and suspended across the ledges of the tunnel. The samples were butted end to end in the test chamber, with cement board place between the sample and tunnel lid..

**CLIENT:** POLYGAL INC. **DATE:** April 4, 2014

**SAMPLE:** "32MM SUPER THERMOGAL".

**IGNITION:** 0 minutes, 36 seconds

**FLAME FRONT:** 13 feet maximum

**TIME TO MAXIMUM SPREAD:** 3 minutes, 00 seconds

**TEST DURATION:** 10 minutes, 00 seconds

**SUMMARY:** **FLAME SPREAD:** 60 (57.0 unrounded)      **SMOKE DEVELOPED:** 300 (311 unrounded)

**OBSERVATIONS:**

Sample began to show signs of melting at 7 seconds, with charring witnessed at 25 seconds. Sustained ignition occurred at 36 seconds, with dripping and falling seen around the same time. Floor burn with large flames at 40 seconds, with floor burn continuing throughout test. After flame was extinguished by lab technician.

**CALIBRATION DATA:**

Time to Ignition of Last Red Oak (sec):	57
Red Oak Smoke Area (%A* Min):	111
Total Fuel Burned (ft³)	59.68



**SUMMARY OF ASTM E84 RESULTS:**

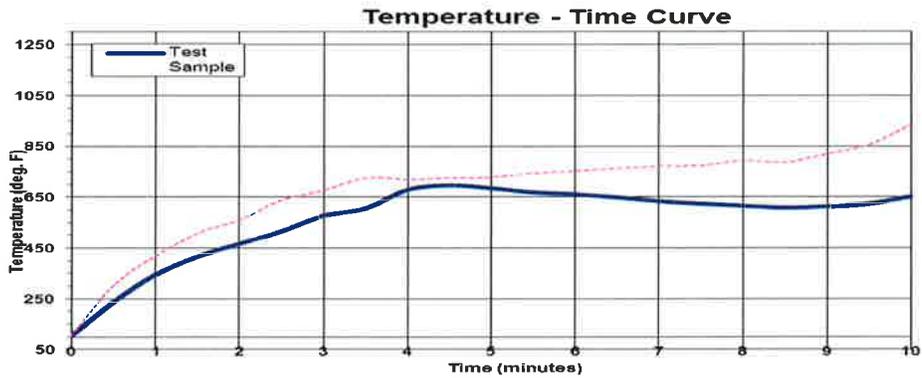
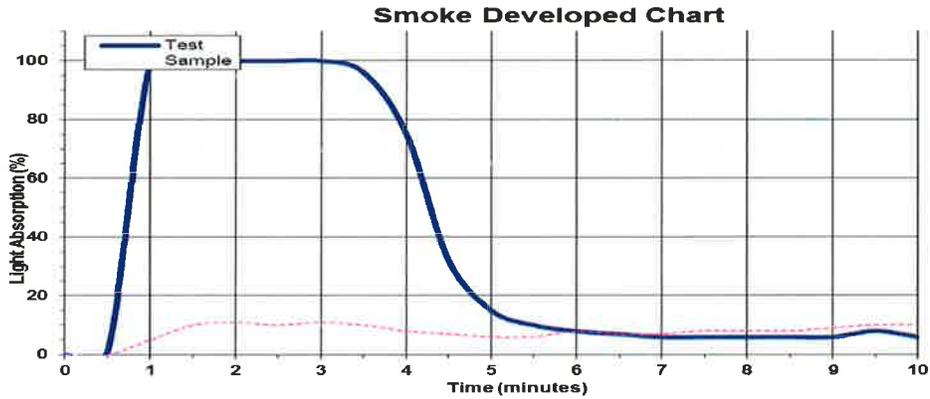
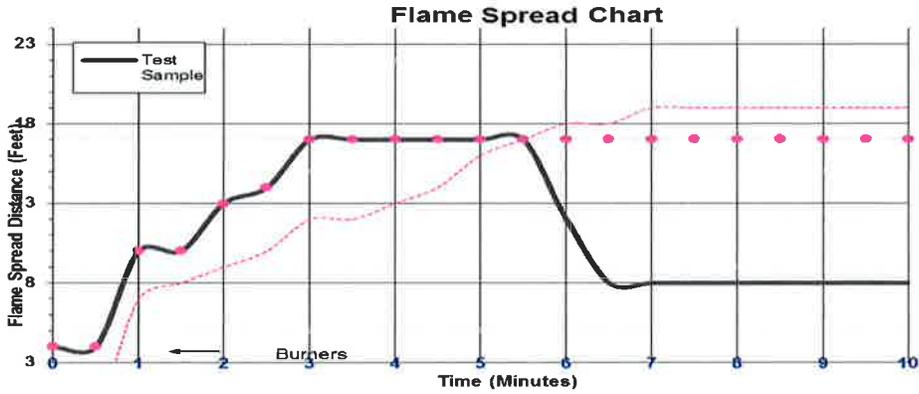
Because of the possible variations in reproducibility, the results are adjusted to the nearest figure divisible by 5. Smoke Density values over 200 are rounded to the nearest figure divisible by 50.

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.



**END OF REPORT**

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