

CLIENT: POLYGAL INC
Attn: Mark Dailey
9405 D. Ducks LN
Charlotte, NC 28273

Test Report No: TJ1296-4	Date: May 28, 2013
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SAMPLE ID: The Client submitted and identified the following test material as “**20MM TOPGAL STANDING SEAM**”.

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 8, 2013

TESTING PERIOD: May 15, 2013

AUTHORIZATION: Proposal SP050613-3 approved on May 6, 2013

TEST REQUESTED: Perform standard flame spread and smoke density developed classification tests on the sample supplied by the Client in accordance with ASTM Designation E84-12, "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.

TEST RESULTS:	<u>Flame Spread</u>	<u>Smoke Developed</u>
	20	300

CLASSIFICATION: The material tested resulted in a Class A. Detailed test results are presented in the subsequent pages of this report

Prepared By



Jared Weise
Fire Test Technician

**Signed for and on behalf of
QAI Laboratories, Inc.**



J. Brian McDonald
Operations Manager



PREPARATION AND CONDITIONING: The sample was submitted and tested in three 8 foot long samples measuring 24 inches wide and approximately 0.80 inches of total thickness. The 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 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.

CLIENT: Polygal Inc **DATE:** May 15, 2013

SAMPLE: 20MM TOPGAL STANDING SEAM

IGNITION: 0 minutes, 38 seconds

FLAME FRONT: 2 feet maximum

TIME TO MAXIMUM SPREAD: 2 minutes, 00 seconds

TEST DURATION: 10 minutes, 00 seconds

SUMMARY: FLAME SPREAD: 20 (17.7 unrounded) **SMOKE DEVELOPED:** 300 (291 unrounded)

OBSERVATIONS:

Sustained ignition of sample began at 38 seconds after test was initiated. Shortly after this flaming drops were seen at that lead to tunnel floor burning. Very little flame spread and light smoke. At test conclusion no after flame was noted.

CALIBRATION DATA:

Time to Ignition of Last Red Oak (sec):	57
Red Oak Smoke Area (%A*Min):	111
Maximum Temperature (°F):	551
Time to Maximum Temperature (min:sec):	9:30
Total Fuel Burned (ft³)	57.78

SUMMARY OF ASTM E84 RESULTS:

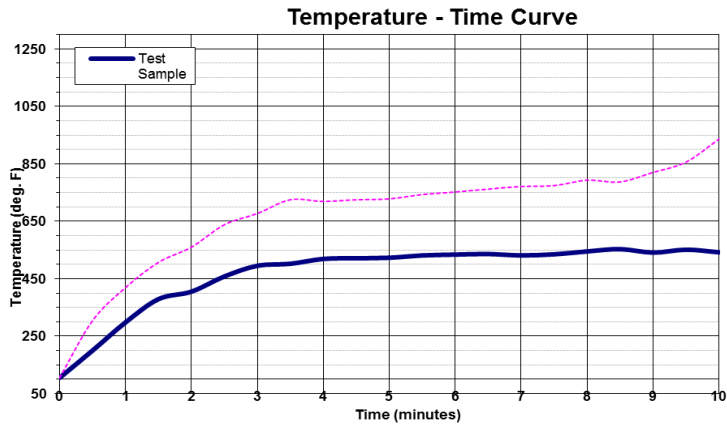
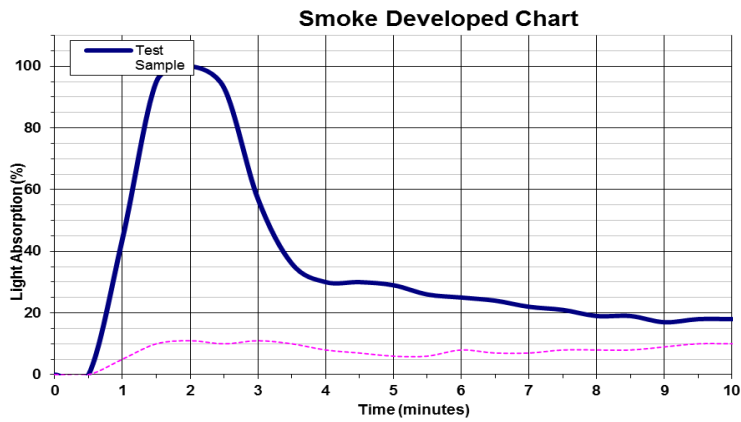
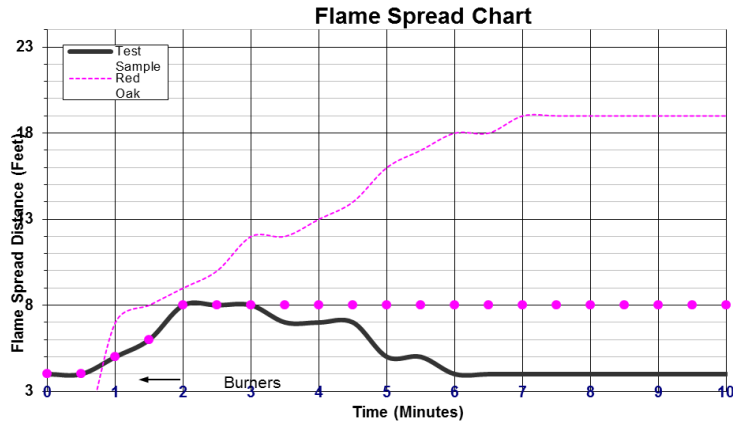
Because of the possible variations in reproducibility, the results are adjusted to the nearest figure divisible by 5. Smoke Density values over 200 are rounded to the nearest figure divisible by 50.

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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