SGS

TEST REPORT

CLIENT: Polygal
P.O. Box 410592
Charlotte, NC 28241

Attn: Nick Koszegi

Test Report No:	**2259675-1**	**Date:**	**December 21, 2010**

SUBJECT: Testing to ASTM E-84

SAMPLE: Sample identified as **"16mm Triple Clip"** was received from the client on 12/13/10 in good condition. The test specimen was described by the manufacturer of containing the following items:

- **Sample Description: 30' of 16mm Triple Clip for ASTM E84 and ASTM D635**

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 method is also published under the following designations; UL 723, ANSI/NFPA 255, and UBC No. 8-1.

PREPARATION: The sample material was submitted in 6 foot sections and 23 inches wide. Technician cut sample to the required 21 inch width and used metal wire and rods to support the sample.

TEST DATE: 12/15/10

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

Gregory Ertel
Engineering Technician

J. Brian McDonald
Fire Technology Department Manager

METHODOLOGY:

This test method is intended to compare the surface flame spread and smoke developed measurements to those obtained from tests of mineral fiber cement board and select grade red oak flooring. The test specimen (21 inches wide by 24 feet long) is exposed to a flaming fire during the 10 minute duration, while flames spread over its surface and density of the resulting smoke are measured and recorded. Test results are presented as the computed comparisons to the standard calibration materials.

The test apparatus is considered under calibration when a 10 minute test of red oak decking will pass flame out the end of the tunnel in 5 minutes and 30 seconds into the test. Mineral fiber cement board forms the zero point for both flame spread and smoke developed indices, while the red oak flooring smoke developed index is set as 100.

This standard should be used to measure and describe the properties of materials, products, or assemblies in response to hear and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use.

OBSERVATIONS:

During the test the specimen was observed to behave in the following manner: Steady ignition began at 0:51 (min:sec). The specimen began to melt at 0:51. The test continued for the 10:00 duration. Upon completion of the test, the gas burners were turned off.

After the test, the specimen was observed to be damaged in the following manner: The sample was melted on the majority of the surface.

DESCRIPTION OF TEST SPECIMENS:

Specimen Identification:	16mm Triple Clip
Specimen Width:	23 inches, cut to 21 inches
Specimen Length:	6 feet
Specimen Thickness:	16 mm
Total Number of Specimens:	4
Adhesive used:	None
Mounting Method:	None

TEST RESULTS:

The test results, computed on the basis of observed flame front advance and electronic smoke density measurements are presented in the following table. In recognition of possible variations and limitations of the test method, the results are computed to the nearest number divisible by five, as outlined in the test method.

Ignition (minutes: seconds)	00:51
Flame Front (feet)	3.0
Time to Maximum Spread (minutes: seconds)	10:00
Flame Spread	15
Smoke Developed	40
Classification	A

CLASSIFICATION INTERPRETATION:

NFPA and IBC Class	Flame Spread	Smoke Developed
A	0 through 25	≤ 450
B	26 through 75	≤ 450
C	76 through 200	≤ 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

GRAPHICAL RESULTS:

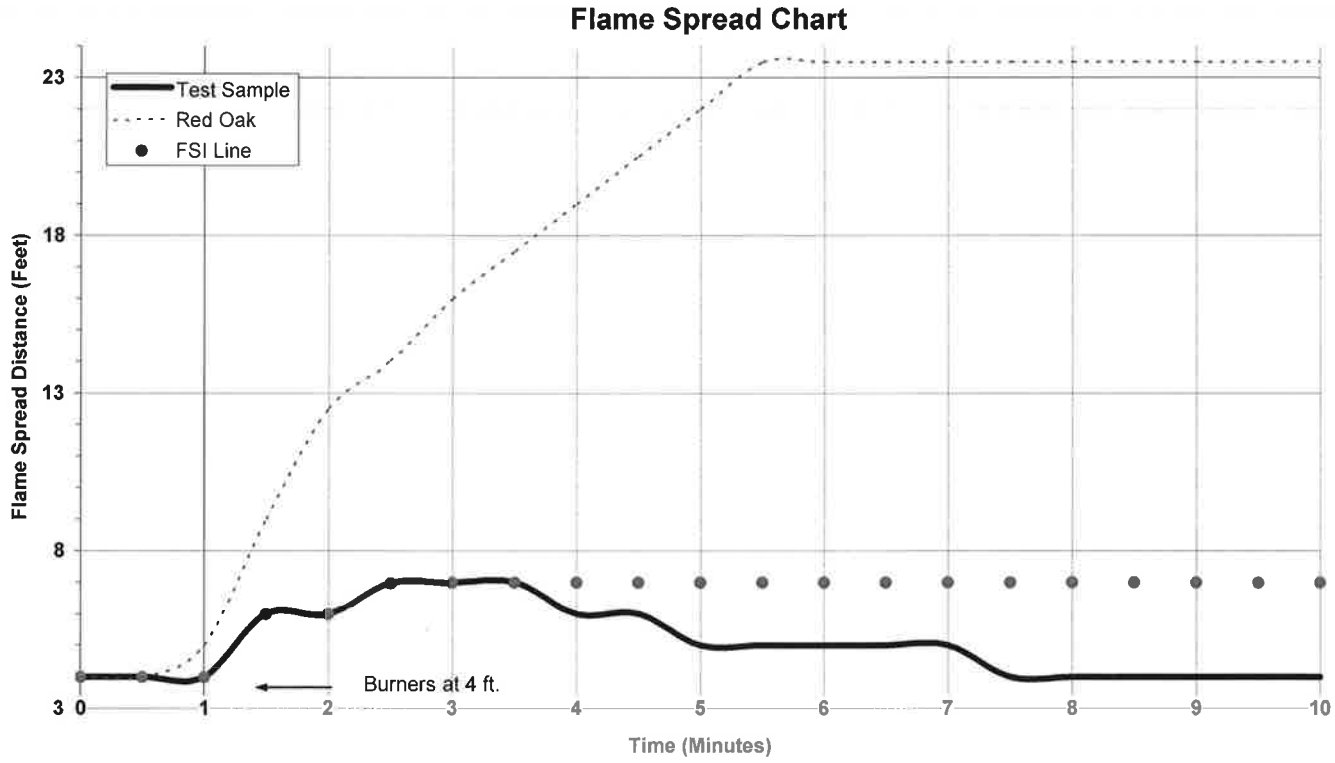

FIGURE 1. Flame Spread

GRAPHICAL RESULTS: (Cont.)

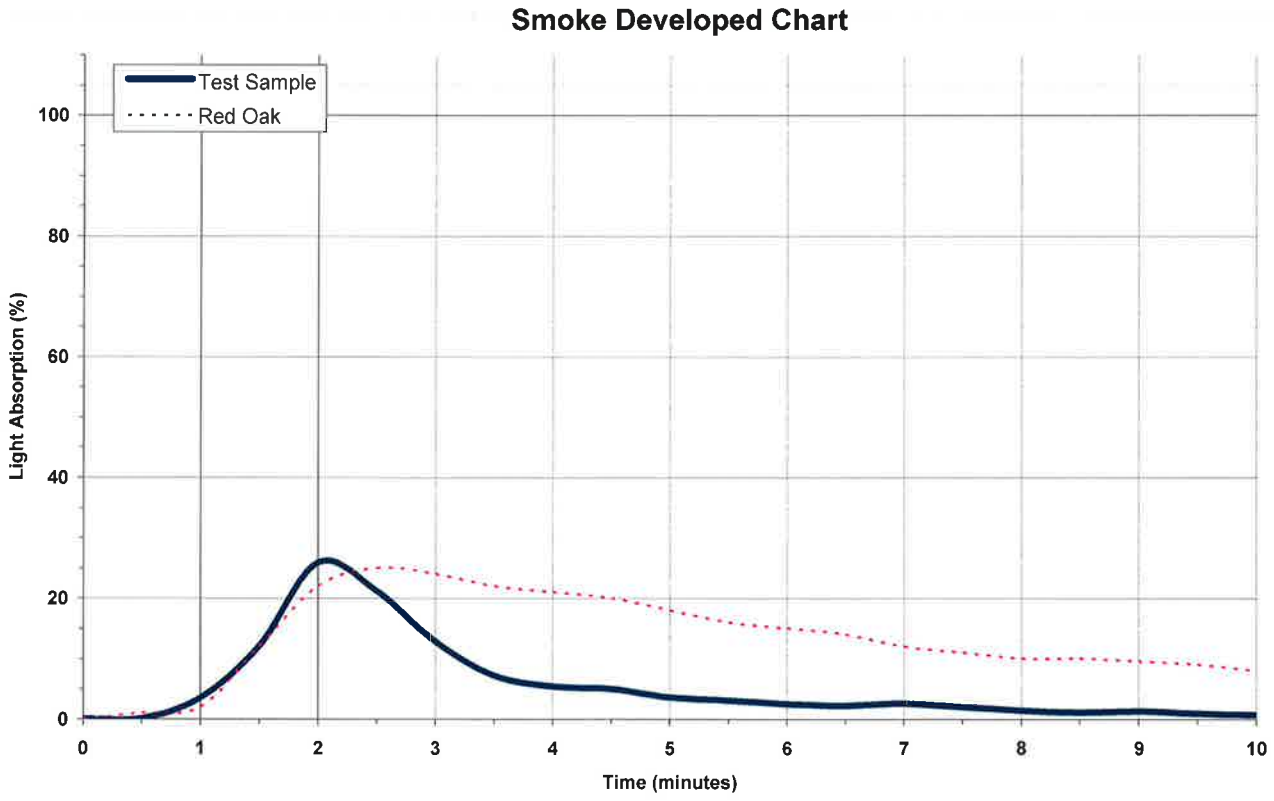

FIGURE 2. Smoke Developed

GRAPHICAL RESULTS: (Cont.)

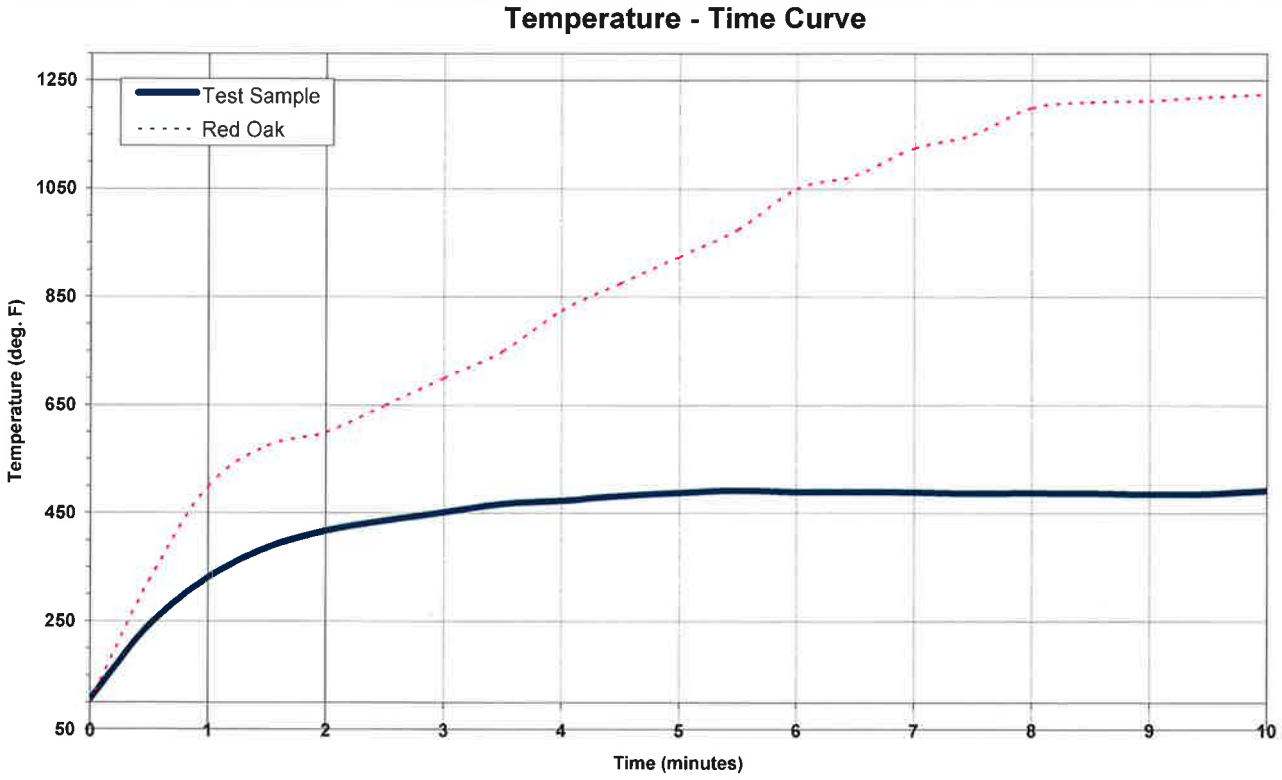

FIGURE 3. Temperature – 24 ft. Air Stream Thermocouple

****

End of Report