TEST REPORT

Report No.: F0719.02-121-24
Test Date: August 24, 2015

Rendered to:

ATS ACOUSTICS
Piper City, Illinois

PRODUCT TYPE: ATS Acoustic Panels
SERIES/MODEL: Guilford of Maine: RC-FR701

TEST METHOD: ASTM E 84-15a, *Standard Test Method for Surface Burning Characteristics of Building Materials*

Summary of ASTM E 84 Test Results	
Flame Spread Index	**Smoke Developed Index**
10	50

This report contains in its entirety:

Cover Page: 1 page
Report Body: 6 pages
Graphs: 1 page
Photographs: 1 page

Reference must be made to Architectural Testing, Inc. Report No. F0719.02-121-24 for complete test specimen descriptions.

1.0 Report Issued To: ATS Acoustics
15 W Main Street
Box 260
Piper City, Illinois 60959

2.0 Test laboratory: Architectural Testing, Inc.
130 Derry Court
York, Pennsylvania 17406-8405
717-764-7700

3.0 Introduction:

The Steiner Tunnel test apparatus is used to evaluate the surface burning characteristics and smoke development of building materials. The tunnel is considered to be under calibrated conditions when the flame front reaches the end of the tunnel within 5 minutes and 30 seconds (plus or minus 15 seconds) during a red oak test. An initial preheat of the tunnel is performed and the test specimen is installed when the tunnel temperature drops to 105°F. When the test is initiated, the 88 KW dual burner and 240 feet per minute air current creates a flame that extends 4.5 feet down the tunnel. The flame progression is tracked from this point to the exhaust end of the tunnel which is 19.5 feet downstream. An observer simultaneously notes any test specimen anomalies such as melting, dripping, sagging, delamination, fall-out, etc. The smoke that is generated during the test is measured by a photometer. The flame spread and smoke developed data are automatically logged and graphed versus time by a data acquisition and computer system. The Flame Spread Index (FSI) and the Smoke Developed Index (SDI) are based on an area under the curve calculation and the red oak flooring calibration data.

4.0 Project Summary:

4.1 Product Type: ATS Acoustic Panels

4.2 Series/Model: Guilford of Maine: RC-FR701

4.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test method(s). The specimen(s) were tested to evaluate the flame spread and smoke developed properties. A summary of the results is listed in the Test Results section and the complete graphical test data is included in Appendix A of this report.

4.4 Test Date: 8/24/2015

4.5 Test Location: Architectural Testing, Inc., test facility in York, Pennsylvania.

4.6 Test Sample Source: The test specimen was provided by the client. Representative samples of the test specimen will be retained by Architectural Testing for a minimum of four years from the test completion date.

4.0 Project Summary: (Continued)

4.7 List of Official Observers:

Name	Company
Mark Freeborn	Architectural Testing, Inc.
Ben Green	Architectural Testing, Inc.

5.0 Test Method(s), Practices and/or Classifications:

ASTM E 84-15a, *Standard Test Method for Surface Burning Characteristics of Building Materials*

6.0 Test Specimen Description:

Date Tested:	8/24/2015
Manufacturer*:	ATS Acoustics
Product Type:	ATS Acoustic Panels
Series/Model:	Guilford of Maine: RC-FR701
Composition*:	Standard wood frame construction with mineral wool core covered in Guilford of Maine RC-FR 701
Conditioning Time:	72+ hrs.
Specimen Size:	24 in. wide x 72 in. long
Thickness:	1 3/4 in.
Specimen Sections:	4
Total Weight:	16.2 lbs.
Color:	Grey Mix
Side to Flame:	Side covered with 100% fabric
Support Used*:	Self-supporting
Substrate Used*:	Wood frame
Cement Board:	The fiber cement board was placed on top of the sample.

*From the client's material description and/or instructions

Note: Specimens were conditioned as per the requirements of Section 6.4 of ASTM E84-15a *Standard Test Method for Surface Burning Characteristics of Building Materials*

7.0 Test Results: The test results are tabulated as follows:

Test Results	
Flame Spread Index (FSI):	10
Smoke Developed Index (SDI):	50
Test Operator:	Mark Freeborn
Red Oak Calibration (% * Min):	121.92

Test Data	
FSI (unrounded):	11.4
SDI (unrounded):	51.6
FS * Time Area (Ft * Min):	22.2
Smoke Area (% * Min):	63.0
Fuel Area (°F * Min):	5509.3

Observations	
Ignition Time:	00:07 (Min:Sec)
Max Flame Front Advance:	2.3 Feet
Time to Max Flame Front:	00:28 (Min:Sec)
Max Temp At Exposed T/C:	620°F
Time To Max Temp:	07:55 (Min:Sec)
Dripping Observed:	00:22 (Min:Sec)
Flaming On Floor Observed:	00:55 (Min:Sec)
After Flame Top Observed:	No
After Flame Floor Observed:	10:03 (Min:Sec)
Sagging Observed:	No
Delamination Observed:	No
Shrinkage Observed:	No
Fallout Observed:	No
Cracking Observed:	No
Observations After the Test:	None

Reference Appendix A for graphs.

7.0 Test Results: (Continued)

In Accordance with ASTM E 84-15a the use of supporting materials on the underside of the test specimen has the ability to lower the flame spread index from those which might be obtained if the specimen could be tested without such support. These test results do not necessarily relate to indices obtained by testing materials without such support (E84-15a, 1.3).

This standard is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled conditions, but does not by itself incorporate all factors required for fire-hazard or fire-risk assessment of the materials, products, or assemblies under actual fire condition s (E84-15a, 1.7).

This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the sole responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use (E84-15a, 1.8).

8.0 Codes and Regulations:

The 2009 International Building Code® (Chapter 8 Interior Finishes, Section 803 Wall and Ceiling Finishes) and NFPA 5000, (Chapter 10 Interior Wall or Ceiling Finish Testing and Classification) classify materials based on their Flame Spread and Smoke Developed indices. The classification criteria are listed below:

Classification	Flame Spread Index	Smoke Developed Index
A	0-25	0-450
B	26-75	0-450
C	76-200	0-450

The service life of this report will expire on the stated Test Record Retention End Date, at which time such materials as drawings, data sheets, samples of test specimens, copies of this report, and any other pertinent project documentation, shall be discarded without notice.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, Inc.

Digitally Signed by: Mark Freeborn

Mark Freeborn
Technician – Fire Testing

Digitally Signed by: Matthew D. Freeborn

Matthew Freeborn
Manager – Fire Testing

MGF:ddr

Attachments (pages): This report is complete only when all attachments listed are included.
Appendix-A: Graphs (1)
Appendix-B: Photographs (1)

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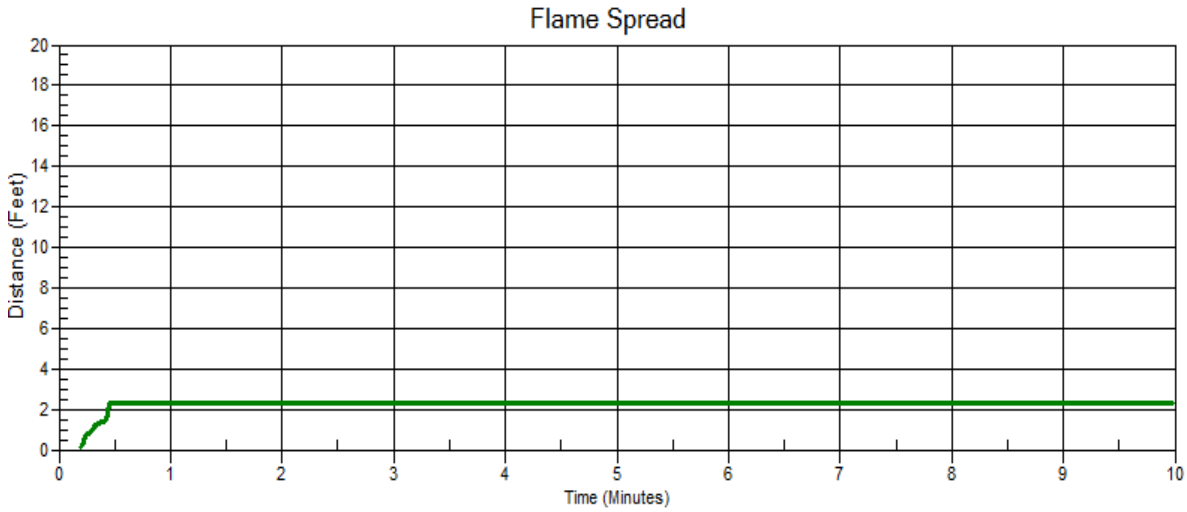
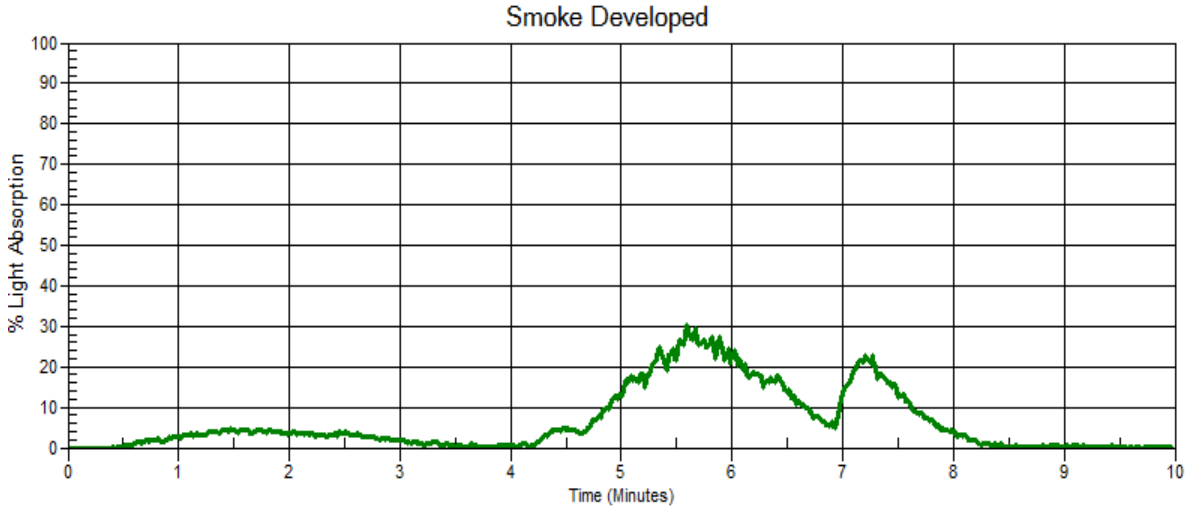
Revision Log

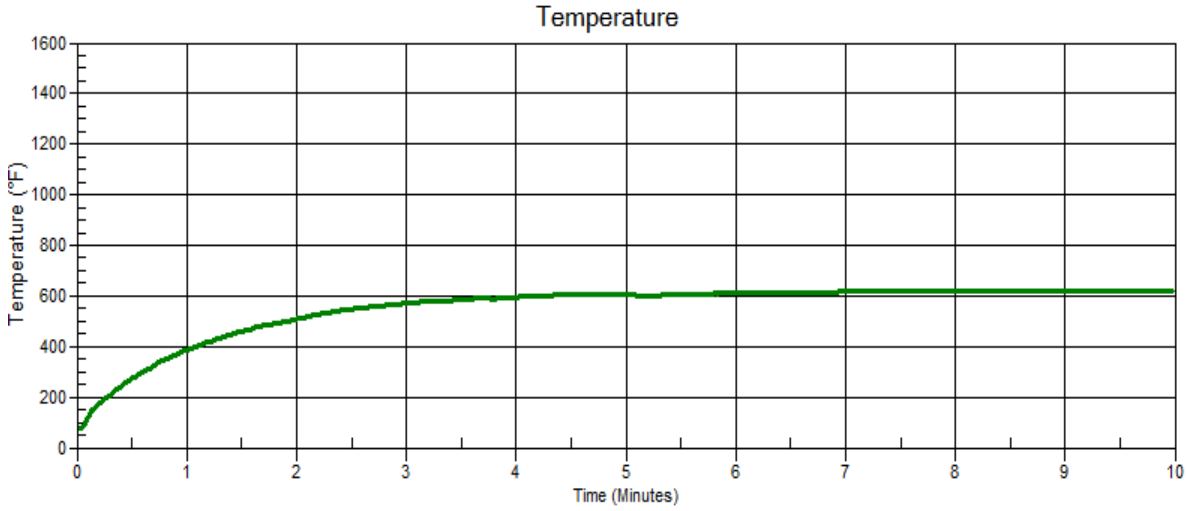
Rev. #	Date	Page(s)	Revision(s)
0	8/26/2015	N/A	Original Report Issue

Appendix A

Graphs


Flame Spread
Distance (Feet)
Time (Minutes)


Smoke Developed
% Light Absorption
Time (Minutes)


Temperature
Temperature (°F)
Time (Minutes)

Appendix B
Photographs

Photo No. 1
Specimen Mounted (Pre-test)

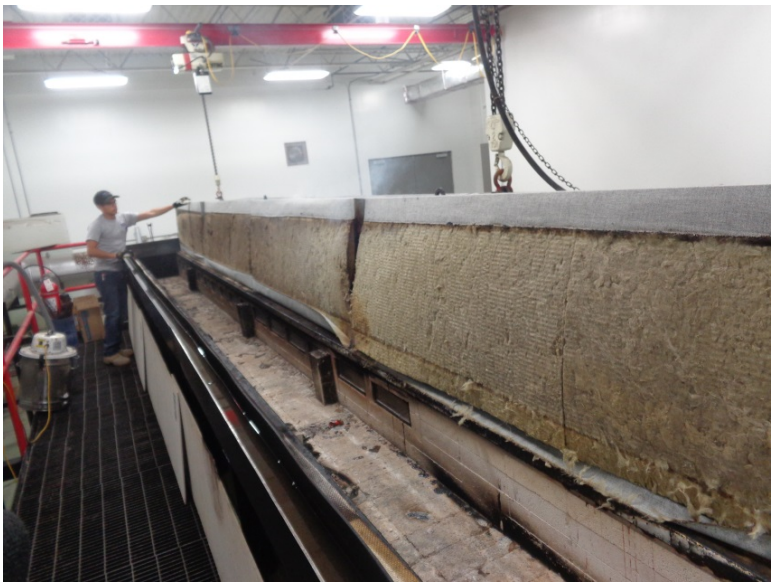


Photo No. 2
Exposed Surface (Post-test)