

PERFORMANCE TEST REPORT

Rendered to:

FABRAL METAL WALL AND ROOFING SYSTEMS

SERIES/MODEL: Amp Lok

PRODUCT TYPE: Aluminum Roof Panel

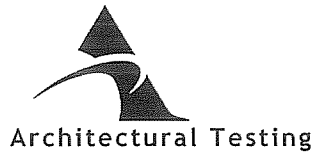
Report No.: 62250.01-122-44

Test Dates: 03/01/06

Through: 05/02/06

Report Date: 05/22/06

Expiration Date: 05/02/10



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FABRAL METAL WALL AND ROOFING SYSTEMS
3449 Hempland Road
Lancaster, Pennsylvania 17601

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Project Summary: Architectural Testing, Inc. (ATI) was contracted by Fabral Metal Wall and Roofing Systems to perform testing on a Series/Model Amp Lok, aluminum roof panel. Test specimen description and results are reported herein.

Test Methods: The test specimen was evaluated in accordance with the following specifications:

ASTM E 1680-95, Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems.

ASTM E 1646-95, Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference.

ASTM E 2140-01, Test Method for Water Penetration of Metal Roof Panel Systems by Static Water Pressure Head.

Test Specimen Description:

Series/Model: Amp Lok

Product Type: Aluminum Roof Panel

Overall Size: 5' 4" wide by 8' 9-1/4" high

Test Specimen Description: (Continued)

Roof Panel Description: The roof system consisted of three full-width panels and two partial-width panels. The aluminum panels measured 0.030" thick, 16" wide by 105-1/4" long. The partial panels on the ends were 8" wide. Each side of the panel utilized a 90° upright bend and another 90° lateral bend at the top. The side of the panel where the clip was attached had a roll-formed ledge on it so that the clip could interlock to it. The first panel was a partial panel with one edge cut off. The panels were secured with stainless steel clips that measured 3/4" on the bottom at the screw locations and then went upright 90°, 3/4" high. The clips were bent another 90° downward forming the part of the clip that interlocked with the panel. The next panel was put in place and overlapped the previous panel. The panels were seamed together utilizing a mechanical seamer, forming a 180° seam at the overlap.

Installation: The panels were installed into a wood test buck. The buck utilized one purlin placed perpendicular to the panel seams and located in the middle of the buck. The ends of the panels were secured with #12 x 1" self-tapping hex head screws located 2" from each end and one at midspan, (reference Photo No. 1). The sides of the partial width panels were fastened with #12 x 1" self-tapping hex head screws located 10" on center, (reference Photo No. 2). The panel clip was located at the purlin and was fastened with one #12 x 1" self-tapping pan head screw, (reference Photo No. 3). Butyl sealant was utilized along each panel to panel seam and around the perimeter.

Test Results:

The results are tabulated as follows:

<u>Test Method</u>	<u>Title of Test</u>	<u>Results</u>
ASTM E 1680	Air Leakage	
	+75 Pa (1.57 psf) -75 Pa (1.57 psf)	<0.01 cfm/ft ² <0.01 cfm/ft ²
ASTM E 1646	Water Resistance (Preload)	
	+718 Pa (15.0 psf) -383 Pa (8.0 psf)	
	Test Pressure	
	+137 Pa (2.86 psf)	No leakage

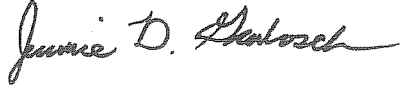
Test Results: (Continued)

<u>Test Method</u>	<u>Title of Test</u>	<u>Results</u>
ASTM E 2140	Water Resistance	
	1 Hour	No leakage
	3 Hours	No leakage
	6 Hours	No leakage

Note: The ambient air temperature was 72 F. The surface temperature of the roof panels was 69°F and the surface temperature of the water was 66°F.

Detailed drawings, representative samples of the test specimen and a copy of this report will be retained by Architectural Testing, Inc. for a period of four years from the original test date. This report is the exclusive property of the client so named herein and is applicable to the sample tested. Results obtained are tested values and do not constitute an opinion or endorsement by this laboratory. This report may not be reproduced, except in full, without approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC:



Digitally Signed by: Jeramie D. Grabosch

Jeramie D. Grabosch
Technician



Digitally Signed by: Michael D. Stremmel

Michael D. Stremmel, P.E.
Senior Project Engineer

JDG:tla

Attachment (pages):

Appendix-A: Photographs (2)

Appendix-B: Drawings (2)