Farabaugh Engineering and Testing, Inc.

Project No. T170-01

Report Date: June 7, 2001

PERFORMANCE TEST STUDY

TITE-LOC PLUS STANDING SEAM ROOF PANEL
24 GA / 16" WIDE
(6 SPANS @ 2'-6")

ASTM E-1592 STRUCTURAL PERFORMANCE TEST

FOR

PETERSEN ALUMINUM CORP.
1005 TONNE RD.
ELK GROVE VILLAGE, IL 60007

Report Prepared By:

Patrick J. Farabaugh, PE

Reviewed and Approved By:

Daniel G. Farabaugh, PE

Keystone Commons • 515 Braddock Avenue • Turtle Creek, PA 15145
(412) 824-3316 • FAX (412) 824-3367

Purpose:

The purpose of this performance test study is to evaluate the Petersen Aluminum Tite-Loc Plus Standing Seam Roof Panel with respect to Metal Building Components, Inc.(MBCI) Superlok Standing Seam Roof Panel as an extension of the referenced tests performed. Petersen Aluminum Corp. is licensed by MBCI to produce the MBCI Superlok Panel (see attached letter in Appendix). Petersen Aluminum Corp. produces this panel under the name Tite-Loc Plus.

Panel and Clip Data:

Panel - Tite-Loc Plus Standing Seam Metal Roof Panel
Panel Width - 16"
Panel Thickness - 24 ga
Panel Clip – Tite-Loc Plus Two Piece Sliding Clip
Panel Joint Sealant – 3/16" bead RoboFoam Factory Applied Hot Melt Mastic, by Q'SO Inc.

Manufacturer:

Petersen Aluminum Corp.
1005 Tonne Road
Elk Grove Village, IL 60007

Panel Analysis:

Tite-Loc Plus Standing Seam Roof Panels were manufactured and submitted for analysis and comparison to the detail drawings as provided in this report. Profiles submitted for review were the 24ga Tite-Loc Plus Panels, 16" wide. A cross section of the panels were measured and compared to the MBCI Battenlok Panel detail drawings.

Referenced Testing:

The referenced testing for this report (attached to the Appendix) is FET Project No. T144-96 on Superlok 16" wide, 24 ga standing seam roof panel.

The summary of this referenced testing is as follows:

ASTM E1592 Structural Test

Description	Max. Test Load
16" w x 24 ga Superlok (6 Spans @ 2'-6" oc)	147.0 psf

Conclusion :

Review of the Tite-Loc Plus panel cross-section as compared to the Superlok detail drawings indicated actual dimensions within the tolerances shown. Petersen Aluminum has submitted documentation indicating that all tooling is identical and by the same manufacturer as MBCI (see letters in Appendix). See appendix for referenced test reports on the MBCI Superlok panel.

	TEST DATA FOR 16" SUPERLOK PANEL 24 GA 6 SPANS @ 2 '-6" oc						
	DEFLECTION DIAL READINGS (INCHES)						
LOAD (PSF)	DIAL 1	DIAL 2	DIAL 3	DIAL 4	DIAL 5	DIAL 6	REMARKS
1.3	0	0	0	0	0	0	PANEL WT.
6.5	0	0.375	0	0.4375	0	0.375	
1.3	0	0	0	0.0625	0	0	PANEL WT.
16.9	0.0625	1.125	0.0625	1.25	0.0625	1.125	
1.3	0	0.125	0	0.125	0	0.125	PANEL WT.
32.5	0.125	1.9375	0.125	2	0.125	2	
1.3	0	0.1875	0	0.1875	0	0.25	PANEL WT.
48.1	0.25	2.875	0.25	2.9375	0.25	3.125	
1.3	0	0.0625	0.0625	0.9375	0	0.0625	PANEL WT.
63.7	0.5	3.75	0.5625	3.75	0.5625	3.875	
1.3	0	0.0625	0.0625	1.5	0.0625	0.0625	PANEL WT.
79.4	0.75	4.125	0.8125	4.1875	0.8125	4.375	
1.3	0	0.0625	0.125	1.875	0.0625	0.0625	PANEL WT.
95.0	1.0625	4.5	1.0625	4.5	1.125	4.625	
1.3	0.125	2.125	0.125	2.3125	0.1875	2.3125	PANEL WT.
110.6	1.375	4.875	1.375	4.8125	1.4375	4.875	
1.3	0.25	2.8125	0.25	2.8125	0.3125	3.125	PANEL WT.
126.2	1.75	5.25	1.8125	5.25	1.75	5.375	
1.3	0.4375	3.25	0.4375	3.25	0.5	3.5	PANEL WT.
141.8	2.25	5.75	2.25	5.8125	2.25	6	
1.3	0.625	3.75	0.625	3.875	0.75	4.125	PANEL WT.
147.0							PANEL BUCKLING
							& FASTENER
							PULLOUT

NOTE: FOR LOCATION OF PANEL BUCKLING AND FASTENER PULLOUT SEE SKETCH 1.