Farabaugh Engineering and Testing Inc.

Project No. T206-06

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TAS 125-03 (ASTM E 1592-01)
STANDARD REQUIREMENTS FOR METAL ROOFING SYSTEMS

PETERSEN ALUMINUM CORP.
SNAP CLAD STANDING SEAM ROOF PANEL
12" WIDE X 0.032" ALUMINUM

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

DANIEL G. FARABAUGH, P.E.
255 Saunders Station Rd.
Trafford, PA 15085
(412) 373-9238

401 Wide Drive • McKeesport, PA 15135
(412) 751-4001 • FAX (412) 751-4003

8/17/06

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STANDARD REQUIREMENTS FOR METAL ROOFING SYSTEMS

Purpose

This test method covers the evaluation of a uniform static air pressure test for materials and products used as external components which help maintain the integrity of the building envelope per Florida Testing Application Standard (TAS) 125-03 (per ASTM E 1592-01) and as provided herein.

Test Date

5-23-06 Test #1 (5 Spans @ 2' oc)
6-2-06 Test #2 (10 Spans @ 1' oc)

Test Specimen

Manufacturer: Petersen Aluminum Corp.
1005 Tonne Rd.
Elk Grove Village, IL 60007

Specimen: SNAP CLAD Standing Seam Roof Panel, 0.032" aluminum (0.029" measured thickness), 12" wide

Panel Length: as shown

Testing Apparatus

Test Chamber: Vacuum Chamber Composed of Wood

Mounting Frame: Hat Shape Subgirts fastened to W6 X 15 Wide Flange Beams

Pressure Indicator: Digital Pressure Manometers

Caliper: Mitutoyo Digital Caliper, Model No. CD-12" CP

Installation

- The panels were installed onto 16 ga supports using Snap Clad Fixed Clips with #12-14 x 1" pancake head self drill fasteners (2 per clip).
- The system was inverted and attached to the steel beams with #14 tek fasteners.
- Plastic (4 mil thick) was employed loosely between the panels and subgirts and in the side joints to create a vacuum seal.

Procedure

- The specimen was checked for proper adjustment and all vents closed in the pressure measuring lines.
- The required deflection measuring apparatus' were installed at their specified locations.
- A nominal initial pressure was applied equal to at least four times but not more than ten times the dead weight of the specimen. This nominal pressure was used as the reference zero and initial deflection readings were recorded.
- At each load increment, pressure was maintained for a period of not less than 60 seconds and until the deflection gages indicated no further increase in deflections.
- Successive increments were achieved as above until failure or ultimate load was reached.

The test was conducted according to the procedure in ASTM E-1592-01 and as noted herein. In our opinion the tape and plastic had no influence on the results of the test.

TEST DATA FOR 12" SNAP CLAD PANEL 0.032" ALUMINUM 5 SPANS @ 2 '-0" oc

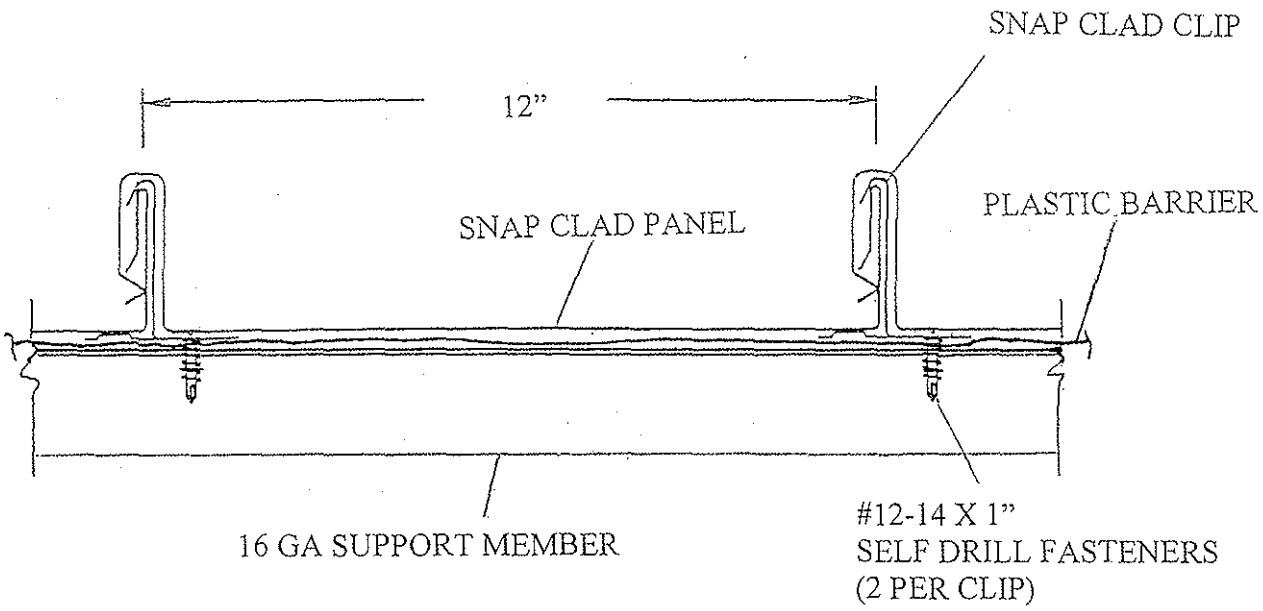
	DEFLECTION POINT READINGS (INCHES)						
LOAD (PSF)	D1	D2	D3	D4	D5	D6	REMARKS
0.7	0	0	0	0	0	0	PANEL WT.
11.1	0.015	0.191	0.018	0.212	0.022	0.21	
0.7	-0.002	0.007	0.008	0.002	0.005	0.013	PANEL WT.
16.3	0.027	0.354	0.029	0.322	0.026	0.339	
0.7	-0.004	0.01	0.002	0.014	0.012	0.025	PANEL WT.
21.5	0.032	0.512	0.034	0.499	0.032	0.546	
0.7	0.001	0.019	0.008	0.011	0.02	0.028	PANEL WT.
26.7	0.046	0.7	0.044	0.663	0.05	0.733	
0.7	-0.004	0.025	0.004	0.024	0.013	0.026	PANEL WT.
31.9	0.062	0.864	0.052	0.828	0.057	0.913	
0.7	0.007	0.028	0.008	0.025	0.017	0.038	PANEL WT.
37.1	0.067	1.09	0.059	0.996	0.07	1.112	
0.7	0	0.033	0.004	0.028	0.018	0.05	PANEL WT.

MAXIMUM TEST LOAD = 54.2 PSF (SIDEJOINT DISENGAGEMENT)

TEST DATA FOR 12" SNAP CLAD PANEL 0.032" ALUMINUM 10 SPANS @ 1 '-0" oc

	DEFLECTION POINT READINGS (INCHES)						
LOAD (PSF)	D1	D2	D3	D4	D5	D6	REMARKS
0.7	0	0	0	0	0	0	PANEL WT.
11.1	0.012	0.199	0.018	0.188	0.012	0.222	
0.7	0.002	0.01	-0.003	-0.03	0.003	-0.009	PANEL WT.
21.5	0.019	0.438	0.026	0.414	0.021	0.435	
0.7	0.006	0.011	-0.001	0.02	0.004	-0.008	PANEL WT.
31.9	0.033	0.73	0.039	0.769	0.041	0.719	
0.7	0.007	0.01	0	0.017	0.005	-0.007	PANEL WT.
42.3	0.047	1.005	0.047	1.029	0.043	1.023	
0.7	0.009	0.025	0.001	0.017	0.006	0.363	PANEL WT.
52.7	0.064	1.217	0.055	1.275	0.05	1.289	
0.7	0.012	0.026	0.009	0.014	0.013	0.415	PANEL WT.
63.1	0.075	1.57	0.066	1.638	0.089	1.564	
0.7	0.014	0.03	0.01	0.014	0.026	0.022	PANEL WT.
73.5	0.095	1.813	0.086	1.987	0.127	1.982	
0.7	0.015	0.076	0.011	0.037	0.026	0.05	PANEL WT.

MAXIMUM TEST LOAD = 83.9 PSF (SIDEJOINT DISENGAGEMENT)



ASSEMBLY DETAIL