Project No. T197-06
Report Date: 7-17-06
No. of Pages: 5

PERFORMANCE TEST REPORT

ASTM E330 UNIFORM LOAD TEST

FLUSH PANEL
12" WIDE X 24 GA STEEL

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
8/10/06
SUBJECT:
Petersen Aluminum Corp. Flush Panel, 24 ga (nominal) steel, 12" wide

INTRODUCTION:
Uniform load tests were conducted on the subject panels on July 3, 2006 at the test facility of Farabaugh Engineering and Testing, Inc. A description of the tests and summary of results are contained herein.

OBJECTIVE:
The purpose of the tests was to determine the uniform load capacity at specified test pressures on the test specimen mock-up.

TEST SPECIMENS:
The specimen mock-up was comprised of Flush Panel, 24 ga steel (measured 0.023" thick), 12" wide. The sidejoints were reinforced with #14 x 7/8" lap fasteners located at 12" oc.

TEST ASSEMBLY:
The Flush Panel assembly was as shown on the attached drawings.

TEST PROCEDURE:
The structural test was per ASTM E330-02 “Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference” and as provided in this report. A controlled blower provided a vacuum to uniformly load the specimen mock-up. A manometer was used to measure the pressure. Uniform load was applied in the positive and negative direction. A plastic barrier was placed between the panel specimen and the substrate.

RESULTS:
The results of the structural tests are shown on the attached tabulation of results.
Summary of Test Results

Test Date: 7-3-06

Specimen: Petersen Aluminum Flush Panel, 24 ga steel, 12" wide

Span Condition: 10 Spans @ 1' oc

Uniform Load: Negative  (Design Load = 48.5 psf, Proof Load = 72.8 psf)

<table>
<thead>
<tr>
<th>Test Pressure (psf)</th>
<th>D1</th>
<th>D2</th>
<th>D3</th>
<th>D4</th>
<th>D5</th>
<th>D6</th>
</tr>
</thead>
<tbody>
<tr>
<td>48.5</td>
<td>0.061</td>
<td>0.254</td>
<td>0.122</td>
<td>0.293</td>
<td>0.072</td>
<td>0.218</td>
</tr>
<tr>
<td>72.8</td>
<td>0.081</td>
<td>0.300</td>
<td>0.154</td>
<td>0.377</td>
<td>0.078</td>
<td>0.279</td>
</tr>
<tr>
<td>0 (Perm. Set)</td>
<td>0.010</td>
<td>0.074</td>
<td>0.053</td>
<td>0.087</td>
<td>0.008</td>
<td>0.064</td>
</tr>
</tbody>
</table>

Uniform Load: Positive  (Design Load = 48.5 psf, Proof Load = 72.8 psf)

<table>
<thead>
<tr>
<th>Test Pressure (psf)</th>
<th>D1</th>
<th>D2</th>
<th>D3</th>
<th>D4</th>
<th>D5</th>
<th>D6</th>
</tr>
</thead>
<tbody>
<tr>
<td>48.5</td>
<td>0.150</td>
<td>0.900</td>
<td>0.182</td>
<td>0.932</td>
<td>0.186</td>
<td>0.919</td>
</tr>
<tr>
<td>72.8</td>
<td>0.159</td>
<td>0.908</td>
<td>0.196</td>
<td>0.961</td>
<td>0.193</td>
<td>0.931</td>
</tr>
<tr>
<td>0 (Perm. Set)</td>
<td>0.002</td>
<td>0.005</td>
<td>0.005</td>
<td>0.012</td>
<td>0.001</td>
<td>0.005</td>
</tr>
</tbody>
</table>

Results:
Upon completion of the loading sequence of the panel specimen, there were no component failures.
#14 x 7/8" LAP FASTENER (12" OC)

#10 PANCAKE HEAD FASTENER (AT EACH SUPPORT 12" OC)

16 GA SUPPORT MEMBER