



American Test Lab, Inc.  
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ATLNC # 0226.01-08

Report Date: 3/13/08

Test Dates: 02/26/08 - 02/29/08

ATLNC Certification # 06-1127.03

**Test Requested By:**

Frank Terry  
Madison Industries Inc.  
Conyers, GA,  
Telephone 770-483-4401 Fax 770-785-7967

**Test Standards:**

ASTM E 330-02, E196, TAS 202

**Test Conditions:** 70-75 degrees F

Specimens A, B, C, D 6' purlin spacing

**Description of product tested:**

**Specimen A, B, C, D** 20 gauge (.037") Metal Roof Panels over W6 x 12 purlins as shown in Madison Industries Drawing A-1

**Configuration:** Specimens Mounted in steel test chamber  
Specimen A, B, C, D (2 spans, 4 panels wide)

**Description of Units:**

**Specimens A, B, C, D**

**Panel Construction-** .037" steel roof panels 16" wide x 168" long with 3" interlocking standing seams per Drawing A-1.

**Purlin Construction-** W6 x 12 I Beams

**Purlin Spacing-** 2 spans 72" OC with 12" overhang as shown in drawing.

**Screws and Method of Attachment-**

**Purlins-** 1/4" stainless steel bolts at each deck rib Type AB Fasteners at 24" OC per Drawing A-1

**Panel Standing Seams-** Overlaps were 16" OC and panels were joined with # 14 x 3/4" Type AB fasteners at 24" OC per Drawing A-1.

**Purlin Attachment-** Each purlin was attached to the chamber.

**STATIC AIR PRESSURE**

TAS 202, ASTM E 330-0

**Specimen A**

**Design Loads** +70psf, -90psf

Range of tests

**Positive loads**

Design

Test

| Time<br>Seconds | Load<br>psf | Max  | Perm. | Recovery |
|-----------------|-------------|------|-------|----------|
| 30              | 70          | .09" | .00"  | 100%     |
| 30              | 140         | .92" | .03"  | 97%      |

Range of tests

**Negative loads**

Design

Test

| Time<br>Seconds | Load<br>psf | Max  | Perm. | Recovery |
|-----------------|-------------|------|-------|----------|
| 30              | 90          | .29" | .03"  | 90%      |
| 30              | 180         | .39" | .06"  | 85%      |

**Specimen B**

**Design Loads** +70psf, -90psf

Range of tests

**Positive loads**

Design

Test

| Time<br>Seconds | Load<br>psf | Max  | Perm. | Recovery |
|-----------------|-------------|------|-------|----------|
| 30              | 70          | .07" | .00"  | 100%     |
| 30              | 140         | .12" | .02"  | 83%      |

Range of tests

**Negative loads**

Design

Test

| Time<br>Seconds | Load<br>psf | Max  | Perm. | Recovery |
|-----------------|-------------|------|-------|----------|
| 30              | 90          | .12" | .00"  | 100%     |
| 30              | 180         | .55" | .01"  | 98%      |

### Specimen C

**Design Loads      +70psf, -90psf**

Range of tests

**Positive loads**

Design  
Test

| Time<br>Seconds | Load<br>psf | Max. | Perm | Recovery |
|-----------------|-------------|------|------|----------|
| 30              | 70          | .09" | .00" | 100%     |
| 30              | 140         | .23" | .04" | 83%      |

Range of tests

**Negative loads**

Design  
Test

| Time<br>Seconds | Load<br>psf | Max  | Perm. | Recovery |
|-----------------|-------------|------|-------|----------|
| 30              | 90          | .11" | .00"  | 100%     |
| 30              | 180         | .35" | .01"  | 97%      |

### Gravity Load Test

ASTM E 196

### **Specimen D**

Range of tests

**Positive loads**

Design  
Test

| Time<br>Seconds | Load<br>psf | Max.  | Perm. | Recovery |
|-----------------|-------------|-------|-------|----------|
| 5 min           | 30          | .034" | 0"    | 100%     |
| 24 hrs          | 60          | .072" | 0"    | 100%     |

Note: Specimens tested vertically. The weight per sq. ft. (2.25 lbs/sq/ft) was added to the design loads.

Note: 2 mil polyethylene film was used for the tests, it is the opinion of the undersigned that it had no influence on the results of the test.

Observers-

Tony Sivore, Keith Owen / ATL  
Shane Worley, Jerome Sivore, Anthony Sivore / ATL  
David W. Johnson, P.E.

Keith Owen, Lab Manager  
American Test Lab, Inc.

*Keith Owen*  
*3/13/08*

All Tests Witnessed and Certified by:

David Johnson P. E.  
1656 Calvert Rd.  
Brevard, NC 28712  
Florida P.E. # 00061915

Engineer Seal And Signature

*David Wesley Johnson*  
*3/13/08*



Certificate of Independence: The witnessing engineer has no financial interest in American Test Lab of North Carolina, Madison Industries or their parts vendors. Witnessing engineer is in complete compliance of Florida Statue 9B-72, Section 72.110.

Disclaimer:

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