



Farabaugh Engineering and Testing Inc.

Project No. T267-08

Report Date: October 6, 2008

No. Pages: 7 (inclusive)

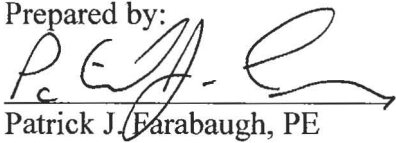
ASTM E-283-04 AIR LEAKAGE TEST
ASTM E-331-00 WATER PENETRATION TEST

7.2 ROOF PANEL
36" WIDE X 24 GA

FOR

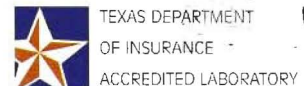
PETERSEN ALUMINUM CORP.
1005 TONNE RD.
ELK GROVE VILLAGE, IL 60007

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10/21/08

AIR LEAKAGE AND WATER PENETRATION TESTING

Purpose

The purpose of this test is to establish air and water infiltration rates on the referenced test specimen in accordance with ASTM E-283-04 "Rate of Air Leakage Through Exterior Windows, Curtian Walls, and Doors Under Specified Pressure Differences Across the Specimen", and ASTM E-331-00, "Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference".

Test Date

10/1/08

Test Specimen

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

Panel: 7.2 Roof Panel, 36" wide X 24 ga steel

Side-joint Sealant 1/8" thick X 1/4" wide Butyl Tape Sealer

Test Apparatus

Test Chamber: Vacuum chamber.

Manometer: Inclined manometer from Dwyer Instruments, 6" capacity.

Air Flow Meter: Laminar Flow Element

Installation

The panels were installed on the chamber frame and intermediate support. The panels were attached to each support using 1/4"-14 X 1-1/4" long hex head self drill fasteners with 5/8" seal washer located at every low cell of the panel. The panel side-joints were overlapping using butyl tape sealer with #12-14 X 1" long hex head self drill fasteners with 5/8" seal washer located at 18" oc. The panels were sealed to the perimeter frame with silicone sealant. Test was done with panels in horizontal position.

Test Procedure

The tests were conducted in accordance with ASTM E-283-04 "Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen", and ASTM E-331-00, "Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference" and as provided herein.

Test Date 10/1/08

Ambient Temperature = 67 deg. F
 Barometric Pressure = 29.8”Hg

ASTM E-283-04
 AIR LEAKAGE TEST
 Summary

POSITIVE PRESSURE
 (INFILTRATION)

Test Specimen	Static Pressure Differential (psf)	Air Leakage Rate (cfm/sf)
PAC		
7.2 Roof Panel	+1.57	0.000
36” wide X 24 ga. 24ga.	+6.24	0.002

NEGATIVE PRESSURE
 (EXFILTRATION)

Test Specimen	Static Pressure Differential (psf)	Air Leakage Rate (cfm/sf)
PAC		
7.2 Roof Panel	-1.57	0.019
36” wide X 24 ga. 24ga.	-6.24	0.019

Test Date 10/1/08

ASTM E-331-00
WATER PENETRATION TEST
Summary

POSITIVE PRESSURE
(INFILTRATION)

Test Specimen	Static Pressure Differential (psf)	Rate	Test Duration	Water Infiltration
PAC	+ 6.24	5 gal./hr/sq.ft.	15 min	No Leakage
7.2 Roof Panel				
36" wide X 24 ga	+15.0	5 gal./hr/sq.ft.	15 min	No Leakage
