

**ASTM E 283, E 331 and E 330
TEST REPORT SUMMARY**

Rendered to:

FOUR SEASONS SOLAR PRODUCTS CORP.

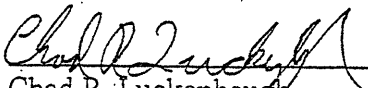
SERIES/MODEL: Aluminum Curtain Wall

**TYPE: Thermally Improved Aluminum
Glazed Wall System**

Title of Test	Results
Overall Design Pressure	30.0 psf
Air Infiltration	<0.01 cfm/ft ²
Water Resistance	6.75 psf
Structural Test Pressure	45.0 psf

Reference should be made to Report No. 01-36534.01 or complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.


Chad R. Luckenbaugh

CRL:tjp

ASTM E 283, E 331 and E 330 TEST REPORT

Rendered to:

FOUR SEASONS SOLAR PRODUCTS CORP.
5005 Veterans Memorial Highway
Holbrook, New York 11741

Report No: 01-36534.01
Test Date: 01/07/00
Report Date: 02/02/00
Expiration Date: 01/07/04

Project Summary: Architectural Testing, Inc. (ATI) was contracted to perform tests on a Modular Wall System. Test specimen description and results are reported herein.

Test Specifications: The test specimen was evaluated in accordance with the following:

ASTM E 283-91 *Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors.*

ASTM E 331-96 *Water Penetration of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference.*

ASTM E 330-97 *Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure.*

Test Specimen Description:

Series/Model: Aluminum Modular Wall System

Type: Fixed Curtain Wall with Two Fixed Lights and a Vertical Intermediate Mullion

Overall Size: 6' 8" wide by 6' 8" high

Daylight Opening Size (2): 3' 1-1/2" wide by 6' 4" high

Finish: All aluminum was painted brown.

Glazing Details: Both fixed lights utilized 7/8" sealed insulating glass comprised of three 1/8" thick clear sheets of tempered glass and two 1/4" wide metal desiccant-filled spacer systems. The insulating glass was exterior glazed using vertical glazing bars attached with screws spaced 12" on center. The glazing bars employed triple fin gaskets. The insulating glass was fastened to horizontal members with double-sided adhesive glazing tape.

Test Specimen Description: (Continued)

Weatherstripping: None

Frame Construction: All frame members were constructed of extruded aluminum. The frame was assembled with coped, butted and sealed corner construction fastened with screws. The frame is made of three vertical extruded aluminum members and two horizontal members. The exterior glazing bars are mounted to vertical members with #10-24 x 1-1/4" screws with thermal bushings. The exterior screws on the glazing bars are covered by a cap running along the center length of the bars. All interior vertical members used triple fin gaskets on the exterior face. The horizontal members were made from two separate pieces. The horizontal members were fastened on interior face with #10-24 x 3/4" screws with thermal bushings and the screws were spaced 6" on center.

Drainage: None

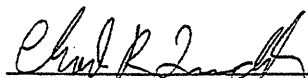
Test Results:

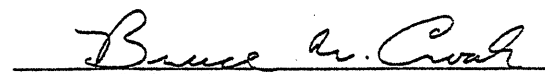
The results are tabulated as follows:

<u>Title of Test - Test Method</u>	<u>Results</u>	
Air Infiltration per ASTM E 283 @ 1.57 psf (25 mph) @ 6.24 psf (50 mph)	<0.01 cfm/ft ² <0.01 cfm/ft	
Water Resistance per ASTM E 331 (with and without screen) WTP = 6.75 psf	No leakage	No leakage
Uniform Load Structural per ASTM E 330 (Measurements reported were taken on the mullion) @ -45.0 psf (interior) @ +45.0 psf (exterior)	0.175" 0.015"	0.32" max. 0.32" max.

Representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. This report is the exclusive property of the client so named herein and is applicable to the sample tested. Results obtained are tested values and do not constitute an opinion or endorsement by this laboratory.

For ARCHITECTURAL TESTING, INC:


Chad R. Luckenbaugh
Technician


Bruce W. Croak
Director of Structural Testing

DOCUMENT CONTROL ADDENDUM #01-36534.00

Current Issue Date: 02/02/00

Report No.: 01-36534.01

Requested by: Joe Esposito, Four Seasons Solar Products Corp.

Purpose: ASTM E 283, E 331 and E 330 testing on a Series/Model Modular Wall System.

Issued Date: 02/02/00

Comments: