

**AAMA/NWDA 101/I.S.2-97
TEST REPORT SUMMARY**

Rendered to:

SIMONTON WINDOWS

SERIES/MODEL: 08-08

**TYPE: Poly Vinyl Chloride (PVC) Triple Casement
Window with Integral "T" Mullions**

RATING: C-R50 100 x 60

Title of Test	Results
Overall Design Pressure	50.0 psf
Air Infiltration	0.05 cfm/ft ²
Water Resistance	7.5 psf
Structural Test Pressure	75.0 psf
Forced Entry Resistance	Passed

Reference should be made to Report No. 05-30075.01 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.


Lynn George, Project Manager

LG:tjp



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AAMA/NWWDA 101/I.S.2-97 TEST REPORT

Rendered to:

SIMONTON WINDOWS
One Cochran Avenue
Pennsboro, West Virginia 26415-9403

Report No: 05-30075.01
Test Date: 05/18/00
Report Date: 06/02/00
Expiration Date: 05/18/04

Project Summary: Architectural Testing, Inc. (ATI) was contracted by Simonton Windows to perform tests on a Series/Model 08-08, Poly Vinyl Chloride (PVC) casement window at their facility in Pennsboro, West Virginia. The sample tested successfully met the performance requirements for a C-R50 100 x 60 rating. Test specimen description and results are reported herein.

Test Specification: The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

Test Specimen Description:

Series/Model: 08-08

Type: Triple PVC Casement Window with Integral Mullions

Overall Size: 8' 4-1/2" wide by 5' 0" high

Vent Size: 2' 8-1/4" wide by 4' 10-1/4" high (three)

Finish: All vinyl was white.

Glazing Details: The vents were exterior glazed with 3/4" thick sealed insulating glass fabricated with two 3/32" thick clear annealed sheets separated by a steel spacer system. The glass was set against 1/2" wide double-sided adhesive glazing tape and secured with snap-in dual durometer vinyl glazing beads.

Test Specimen Description: (Continued)**Weatherstripping:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
3/8" diameter co-extruded hollow vinyl bulb	1 Row	Perimeter of vents
1/4" long co-extruded flexible vinyl leaf	2 Rows	Perimeter of vents

Frame Construction: The PVC frame was assembled using mitered and welded corner construction. The integral "T" mullions were coped, butted and secured with four screws per end through the head and sill. Two #8 x 2-1/2" long screws per end were used to secure the interior side of the "T" mullions, and two #8 x 1-3/4" long screws per end were used to secure the exterior side of the "T" mullions. Four 1/16" thick x 1/2" wide x 1-3/4" long steel mullion plates, one per end, were located at the exterior attachment screws.

Sash Construction: The PVC sash were assembled using mitered and welded corner construction.

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
3-point point lock system	3	Integral "T" mullions
Plastic lock keepers	9	Lock stiles, 12" from each end and at midspan
Steel snubbers	6	Hinge stiles/jambs and "T" mullion 23-1/2" from each end
Two bar hinge	6	Head/top rails and sill/bottom rails
Rotary operator	3	9" from each hinge jamb

Drainage:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
3/16" diameter hole	6	Bottom rail glazing pockets, 1" in from each end

Reinforcement: The integral "T" mullions were reinforced with a custom shaped extruded aluminum.

Installation: The window was installed into a 2" x 10" wood buck constructed of #2 grade treated pine. The window perimeter was secured through the nail fin with 1-1/4" drywall screws spaced 4-1/2" o.c. and sealed with silicone caulking.

Test Results:

The results are tabulated as follows:

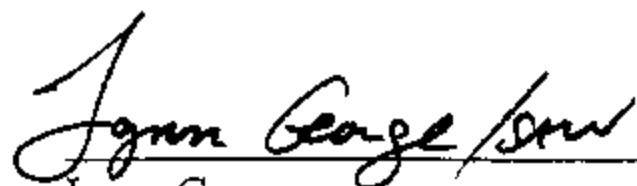
<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.1.2	Air Infiltration (See Note #1) @ 1.56 psf (25 mph)	0.05 cfm/ft ²	0.3 cfm/ft ² max.
<i>Note #1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/NWDA 101/I.S. 2-97 for air infiltration.</i>			
2.1.3	Water Resistance per ASTM E 547 WTP = 2.86 psf	No leakage	No leakage
2.1.4.2	Uniform Load Structural (Measurements reported were taken on the left mullion) @ 22.5 psf (exterior) @ 22.5 psf (interior)	0.019" 0.010"	0.234" max. 0.234" max.
2.1.7	Welded Corner Test	Meets as stated	Meets as stated
2.1.8	Forced Entry Resistance per ASTM F 588-97 Type: B Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Test B1 thru B3	No entry	No entry
	Lock Manipulation Test	No entry	No entry
2.2.5.6.1	Vertical Deflection Test @ 45 lbf	0.13"	0.67" max.
2.2.5.6.2	Hardware Load Test @ 5.0 lb/ft ²	No deformation	No deformation

Optional Performance

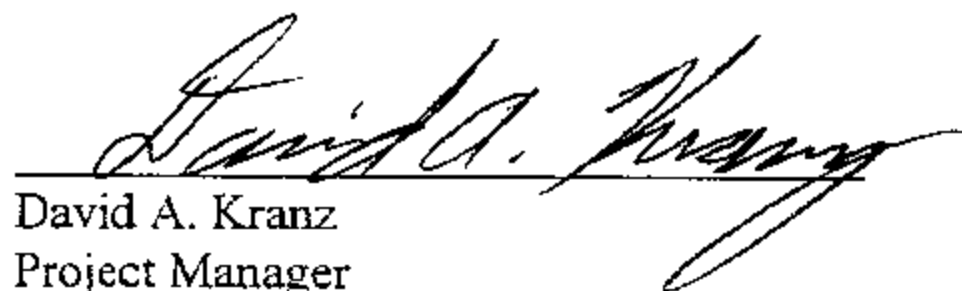
4.3	Water Resistance per ASTM E 547 WTP = 7.5 psf	No leakage	No leakage
4.4.2	Uniform Load Structural per ASTM E 330 (Measurements reported were taken on the left mullion) @ 75.0 psf (exterior) @ 75.0 psf (interior)	0.091" 0.137"	0.234" max. 0.234" max.

Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product which may only be granted by the certification program administrator.

For ARCHITECTURAL TESTING, INC:



Lynn George
Project Manager



David A. Kranz
Project Manager

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