



Architectural Testing

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

Rendered to:

DAYTON TECHNOLOGIES, L.L.C.
351 North Garver Road
Monroe, Ohio 45050-1292

Report No: 07-30125.01
Test Date: 05/18/01
Report Date: 06/19/01
Expiration Date: 05/18/05

Project Summary: Architectural Testing, Inc. (ATI) was contracted to witness tests on two Series/Model 7300 PVC casement windows at Dayton Technologies test facility in Monroe, Ohio. The samples tested successfully met the performance requirements for the following ratings: Test Specimen #1, C-C50 36 x 72 and Test Specimen #2, C-C40 72 x 60 twin. Test specimen descriptions 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: 7300

Type: PVC Casement Window

Test Specimen #1: C-C50 36 x 72

Overall Size: 3' wide by 6' high

Vent Size: 2' 11" wide by 5' 10-1/2" high

Reinforcement: none

Test Specimen #2: C-C40 72 x 60 twin

Overall Size: 6' wide by 5' high

Vent Size (2): 2' 11" wide by 4'-11" high

Reinforcement: None

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Test Specimen Description (Continued)

The following description applies to all specimens

Finish: All PVC was white.

Glass Type: Nominal ^{3/4"} 1" thick sealed insulated glass fabricated from two 1/8" clear annealed sheets with a spacer system.

Glazing Details: All panels were exterior wet glazed with silicone and secured with exterior PVC snap-in glazing beads.

Weatherstripping:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
5/8" long flexible bulb gasket	1 Row	Perimeter of vents
0.300" high by 0.187" back with fin seal	1 Row	Perimeter of vents
5/8" diameter hollow flexible bulb gasket	1 Row	Perimeter of frame

Frame Construction: The frame was constructed of extruded PVC members with mitered and welded corners. The twin unit was constructed with an integral mullion that was butt jointed and screwed with one or more #8 by 3" steel screws through head and sill.

Vent Construction: The vents were constructed of extruded PVC members with mitered and welded corners.

Hardware:

Metal hinge assembly rail/hinge	2	One in each top and bottom stile corner of vents
Rotary operator assembly (dual arm Truth)	1	One midspan of bottom rail
Multi latch and keeper Test Specimen #1 36x72	3	One each at 6", 36", 66" from head
Test Specimen #2 72x60 twin	6	One each at 8-1/2", 31", and 54-1/2".
Snubbers (Truth)	2	20" and 50" from head

Drainage: Sloped sill

Installation: The test unit was installed into the 2" by 10" #2 yellow pine wood test buck with #8 by 1-1/2" steel screws into jambs 6", 30" and 54" down from head (total 6).. The exterior perimeter was sealed with silicone.

Test Results: The results are tabulated as follows.

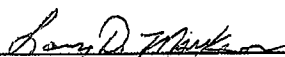
<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
<u>Test Specimen #1:</u> C-C50 36" by 72"			
2.1.2	Air Infiltration per ASTM E 283 (See Note #1) @ 1.57 psf (25 mph)	0.02 cfm/ft ²	0.3 cfm/ft ²
<i>Note #1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/NWWDA 101/I.S.2-97 for air infiltration.</i>			
2.1.3	Water Resistance per ASTM E 547 WTP = 4.50 psf	No leakage	No leakage
2.1.4.2	Uniform Load Structural per ASTM E 330 (measurements reported were taken on the hinge stile) @ 45.0 psf (exterior) @ 45.0 psf (interior)	0.01" 0.01"	0.283" max. 0.283" 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 Test Test B1 thru B3 Lock Test	No entry No entry No entry	No entry No entry No entry
2.2.5.6.1	Vertical Deflection Test @ 45 lbs @ 60 lbs	0.0625" 0.09375"	0.7275" max. 0.7275" max.
2.2.5.6.2	Hardware Load Test @ 6.24 psf	No damage	No damage
<u>Optional Performance</u>			
4.3	Water Resistance per ASTM E 547 WTP = 9.00 psf	No leakage	No leakage
4.4.2	Uniform Load Structural per ASTM E 330 (measurements reported were taken on the hinge stile) @ 75.0 psf (exterior) @ 75.0 psf (interior)	0.01" 0.02"	0.2283" max. 0.2283" max.

Test Results (Continued)

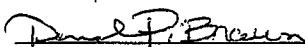
<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
<u>Test Specimen #2:</u> C-C40 72 x 60 Twin			
<u>Optional Performance</u>			
4.4.2	Uniform Load Structural per ASTM E 330 (measurements reported were taken on the hinge stile)		
	@ 60.0 psf (exterior)	0.05"	0.239" max.
	@ 60.0 psf (interior)	0.05"	0.239" 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.:



Larry D. Mankin
Technician



Daniel P. Braun
Regional Operations

LDM/jb
07-30125.01



DOCUMENT CONTROL ADDENDUM 07-30125.00

Current Issue Date: 06/18/01

Report No.: 07-30125.01

Requested by: Dennis Cox

Purpose: Structural Test

Issued Date: 06/18/01