



Architectural Testing

ANSI/AAMA/WDMA STRUCTURAL TEST REPORT

Rendered to:

HURD MILLWORK COMPANY, INC.
520 South Whelen Avenue
Medford, Wisconsin 54451

ATI Report No: 06-30114.01
Test Dates: 03/30/01
and: 04/03/01
Report Date: 04/13/01
Expiration Date: 03/30/05

Series/Model: Monument 3-0 x 6-0 Vinyl Casement
Type: PVC Crank-out Casement Window

Test Procedure:

The test specimen was evaluated in accordance with ANSI/AAMA/WDMA 101/I.S. 2-97, "Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors," for conformance to the Class C-C40 36 x 72 performance requirements.

Test Specimen Description:

Overall Size: 35 -1/2" wide by 71 -1/2"
Sash Size: 33 -1/2" wide by 69 -1/2" high
Overall Area: 17.63 ft^2

Finish: All vinyl was white.

Glazing: The sash was glazed using nominal 1" thick sealed insulating glass composed of two sheets of double strength clear annealed glass and a 3/4" thick aluminum spacer. The glass was set from the exterior against a closed cell foam glazing tape, with silicone backed at the tape corners, and vinyl glazing beads were employed at the exterior.

Weatherstripping:

Table with 3 columns: Description, Quantity, Location. Rows include: 0.187" backed by 0.320" high pile w/center fin (1 row, Outer perimeter of sash), Q300x190 foam filled bulb (1 row, Interior perimeter of frame), QWS-530 foam filled bulb (1 row, Exterior perimeter of frame)



Test Specimen Description:(con't)

Frame/Sash Construction: The frame and sash members were mitered and employed welded corner construction.

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Split arm roto operator	1	Sill
10" metal 2-bar hinge w/tracks	2	Hinge side head and sill
3-point lock w/plastic strikes	1	Locking jamb/stile, located at tip of sash to centerline at 9-3/8", 34" and 58-5/8"
2 piece metal snubber	3	Hinge side jamb/stile located from tip of sash to centerline 12", 33-1/2" and 54-3/4"
Vinyl lift block	1	Frame sill

Drainage:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
3/8" diameter hole	2	Exterior face of frame sill, 1-1/2" from end
1/4" by 5/8" slot	2	Sill cavity, 3" from end
1/4" by 5/8" slot	2	Sash bottom rail, 3" from end

Installation: The window was installed into a nominal 2" by 6" wood buck/wall. The interior side of the integral nailing flange was sealed to the wood surround, as well as the nail head, and secured with 2" galvanized roofing nails spaced approximately 4" on center.

Test Results:

<u>Paragraph</u>	<u>Title of Test</u>	<u>Results</u>	<u>Allowed</u>
2.1.2	Air Infiltration ASTM E 283-91 @ 1.57 psf	0.01 cfm/ft ²	0.30 cfm/ft ²

The test specimen meets the performance levels specified in ANSI/AAMA/WDMA 101/I.S.2-97 for a C-C40 window.

Test Results: (continued)

<u>Paragraph</u>	<u>Title of Test</u>	<u>Results</u>	<u>Allowed</u>
2.1.3	Water Resistance ASTM E 547-93 @ 4.50 psf	No entry	No entry @ 4.50 psf
2.1.4.2	Uniform Load Structural ASTM E 330-96 Sash @ 30.00 psf (positive) @ 30.00 psf (negative)	0.005" 0.003"	0.4% of L = 0.134" 0.4% of L = 0.134"
2.2.5.6.1	Vertical Deflection Test @ 60 lbf	0.06"	< 0.25"/ft = 0.70"
2.2.5.6.2	Hardware Load Test @ 6.24 lbf/ft ²	No damage	No damage
2.1.7	Welded Corner Test	Meets as stated	Meets as stated
2.1.8	Forced Entry Resistance ASTM F 588-97 Grade 10	No entry	No entry @ Grade 10

Optional Performance:

<u>Paragraph</u>	<u>Title of Test</u>	<u>Results</u>	<u>Allowed</u>
4.3	Water Resistance ASTM E 331-93 @ 7.50 psf	No entry	No entry @ 6.00 psf
4.4.2	Uniform Load Structural ASTM E 330-96 Sash @ 60.00 psf (positive) @ 60.00 psf (negative)	0.010" 0.005"	0.4% of L = 0.134" 0.4% of L = 0.134"



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.

Design Pressure Rating: For use in locations adhering to the S.B.C.C.I., S.F.B.C., S.F.B.C. Broward Edition, and where the pressure requirements as determined by ASCE 7 minimum design loads for buildings and other structures does not exceed design pressure ratings listed above.

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