



Architectural Testing

## ANSI/AAMA/WDMA STRUCTURAL TEST REPORT

Rendered to:

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

ATI Report No: 06-30299.01  
Test Dates: 11/01/01  
and: 12/12/01  
and: 01/08/02  
Report Date: 01/23/02  
Expiration Date: 11/01/05

**Series/Model:** 6-5 x 5-0 Premium Vinyl Single Sliding Window (OX)

**Type:** Vinyl Horizontal Half Slide 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 HS-LC25 77 x 60** performance requirements, as well as water test 4.50 psf. Uniform load structural testing was also performed per North Carolina Building Code 613.2-Mullions.

### Test Specimen Description:

**Overall Size:** 76 -1/2" wide by 59 -1/2" high

**Sash Size:** 37 -3/8" wide by 56 -7/8" high

**Overall Area:** 31.61 ft<sup>2</sup>

**Finish:** All vinyl was white.

**Glazing:** The sash was glazed using nominal 3/4" thick sealed insulating glass composed of two sheets of double strength clear annealed glass and a 1/2" thick aluminum spacer. The glass was set from the exterior against a closed cell foam glazing tape, with silicone backbed at the tape corners, and vinyl glazing beads were employed at the exterior.

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**Test Specimen Description: (con't)****Weatherstripping:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.250" backed by 0.187" high pile w/center fin	1 row	Operator sash exterior perimeter
0.250" backed by 0.187" high pile w/center fin	1 row	Fixed sash meeting stile
1/4" Backer foam	1 row	Head and sill and side jamb

**Frame/Sash Construction:** The frame and sash members were mitered and employed welded corner construction. The fixed meeting stile was secured to the frame head and sill at each end with two (2) #6 by 2 -3/4" metal screws.

**Reinforcements:** Fixed meeting stile was reinforced with aluminum extrusion (refer to die number HR-441-3).

**Hardware:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Brass roller w/nylon housing	4	Sash bottom rail, two near end
Metal sweep lock	2	Vertical meeting stile, 6" from each end
PVC anti-lift out brackets	2	Head track, 2" and 16" from frame

**Drainage:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
3/8" by 1/4" weep hole	2	Sill exterior and inner cavity leg, 1 -1/2" from each end
5/8" by 1/4" weep hole	2	Sill to hollow below, 3" from each jamb
3/8" by 1/4" weep hole	2	Fixed lite 3" from end of sash

**Screen Construction:** The screen frame was roll formed aluminum with plastic corner keys, fiberglass screen cloth was attached to the frame with a rubber spline.

**Test Specimen Description: (con't)**

**Installation:** The window was installed into a nominal 2" by 8" wood buck. The interior side of the integral nailing flange was sealed with silicone sealant 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>
2.2.2.5.1	Operating Force Operator Sash	7 lbs.	25 lbs.
2.1.2	Air Infiltration ASTM E 283-91 @ 1.57 psf	0.07 cfm/ft <sup>2</sup>	0.30 cfm/ft <sup>2</sup>
<i>The test specimen meets the performance levels specified in ANSI/AAMA/WDMA 101/I.S.2-97 for a HS-LC25 window, for air infiltration.</i>			
2.1.3	Water Resistance ASTM E 547-96 @ 3.75 psf	No entry	No entry @ 3.75 psf
2.1.4.2	Uniform Load Structural ASTM E 330-97 Meeting stile @ 37.50 psf (positive) @ 37.50 psf (negative)	0.135" 0.170"	0.4% of L = 0.227" 0.4% of L = 0.227"
2.2.2.5.2	Deglazing Test ASTM E 987-88 Left stile @ 70 lbs. Right stile @ 70 lbs. Top rail @ 50 lbs. Bottom rail @ 50 lbs.	<0.01"/2% <0.01"/2% <0.01"/2% <0.01"/2%	0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100%
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 547-96 @ 4.50 psf	No entry	No entry @ 3.75 psf
4.4.1	Uniform Load Deflection at Design Pressure* ASTM E 330-97 (60 seconds) Meeting stile		
	@ 25.00 psf (positive)	1.160"	No damage
	@ 25.00 psf (negative)	1.200"	No damage

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.

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.

ARCHITECTURAL TESTING, INC.

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