



Architectural Testing

**ANSI/AAMA/WDMA STRUCTURAL TEST REPORT**

Rendered to:

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

Report No: 06-30387.01  
Test Date: 04/03/02  
Report Date: 04/03/02  
Expiration Date: 04/03/06

**Series/Model:** Premium Double Hung  
**Type:** Aluminum Clad Double Hung Picture 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 F-C30 69 x 81** performance requirements. Uniform load structural testing was also performed per North Carolina Building Code 613.2-Mullions. As well as optional DP40 structural test.

**Test Specimen Description:**

**Overall Size:** 69 -3/8" wide by 80 -5/8" high  
**Sash Size:** 67 -13/16" wide by 77 -1/2" high  
**Overall Area:** 38.84 ft<sup>2</sup>

**Finish:** The exterior was aluminum clad, and the interior was natural wood.

**Glazing:** The inoperable sash was glazed with nominal 3/4" thick insulating glass consisting of two sheets of 3/16" clear annealed glass and a 3/8" thick Intercept spacer. The glass was set from the interior against a continuous silicone back bed and wood glazing beads at the interior were secured with 3/4" wire brads located 6" to 8" on center.

**Frame Construction:** The frame head and sill members consisted of finger jointed pine, vertical jamb members consisted of timber strand lumber. The extruded aluminum cladding was snap fit and secured with 1/8" by 1/2" crown staples spaced approximately 8" to 10" on center. The corners utilized square cut, dadoed, silicone sealant and secured with two (2) 1/2" by 2" crown staples, per corner. Interior sash stops were utilized at the head, sill and jamb conditions and secured with 1/8" by 1 -1/8" crown staples located 6" to 8" on center. The 1 -1/4" sill liner was secured at the interior with 1/8" by 1 -1/8" crown staples located 8" to 10" on center and continuously sealed to the frame sill with silicone sealant. A vinyl snap-in frost barrier was applied at the sill. Filler bars were utilized at head and jamb locations, fastened with 1/8" by 1/2" crown staples, space 6" to 8" on center.

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

**Weatherstripping:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.200" dia. hollow vinyl bulb	1 row	Filler bars
0.300" dia. foam filled bulb	1 row	Lower sash, bottom rail

**Sash Construction:** The sash members consisted of molded pine sections and utilized open mortise and tenon construction with two (2) 1 -1/8" long wire nails per corner. The extruded aluminum cladding was snap fit. The sash was set into the frame from the interior and secured to the frame with #8 by 2" metal screws at the head, sill and jambs spaced 6" from ends, five (5) per side, evenly spaced.

**Installation:** The test specimen was installed into a nominal 2" x 4" wood buck/wall utilizing the applied nailing flange on all four sides. The unit was set into the continuous bed of silicone sealant. The Flange was secured to the wood buck/wall with 2" long roofing nails, spaced approximately 4" on center. Silicone was applied over the nail heads and the perimeter of the nailing flange.

**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 @ 6.24 psf	0.03 cfm/ft <sup>2</sup> 0.07 cfm/ft <sup>2</sup>	0.3 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 F-C30 window, for air infiltration.</i>			
2.1.3	Water Resistance ASTM E 547-96 @ 4.50 psf	No entry	No entry @ 4.50 psf
2.1.4.2	Uniform Load Structural ASTM E 330-97 Stile @ 45.00 psf (positive) @ 45.00 psf (negative)	0.003" <0.001"	0.4% of L = 0.080" 0.4% of L = 0.080"
2.1.8	Forced Entry Resistance ASTM F 588-97 Grade 10	No entry	No entry @ Grade 10



**Test Results: (con't)**

**Optional Performance:**

<u>Paragraph</u>	<u>Title of Test</u>	<u>Results</u>	<u>Allowed</u>
4.4.1	Uniform Load Deflection at Design Pressure* ASTM E 330-97 (60 seconds) Stile		
	@ 40.00 psf (positive)	0.025"	No damage
	@ 40.00 psf (negative)	0.003"	No damage
4.4.2	Uniform Load Structural ASTM E 330-97 Stile		
	@ 60.00 psf (positive)	<0.001"	0.4% of L = 0.072"
	@ 60.00 psf (negative)	<0.001"	0.4% of L = 0.072"

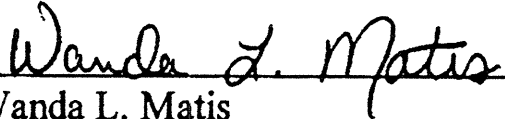
\*Not required fro ANSI/AAMA/WDMA/101/I.S. 2-97

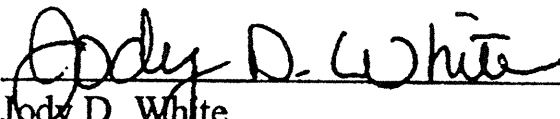
Design Pressure Rating: For use in locations adhering to the S.B.C.C.I., S.F.B.C., S.F.B.C. Broward Edition, and where the pressure requirements as determined by ASCE 7 minimum design loads for buildings and other structures does not exceed design pressure ratings listed above.

Detailed drawings 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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