



Architectural Testing

ANSI/AAMA/WDMA STRUCTURAL TEST REPORT

Rendered to:

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

ATI Report No: 06-30278.01
Test Dates: 10/04/01
Report Date: 10/10/01
Expiration Date: 10/04/05

Series/Model: 6-0 x 8-0 Clad French Outswing Door

Type: Aluminum Clad Outswing Wood French Door

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 HGD-LC60 72 x 96 performance requirements.

Test Specimen Description:

Overall Size: 71 -3/8" wide by 95 -3/8" high

Active Panel Size: 34" wide by 93" high

Inactive Panel Size: 34" wide by 93" high

Overall Area: 47.27 ft²

Finish: Interior wood was natural and exterior aluminum cladding was white.

Glazing: The panels utilized nominal 3/4" thick sealed insulating glass composed from two sheets of 1/8" clear tempered glass separated by a nominal 1/2" Intercept metal spacer. The glass was set from the interior against a continuous backbed of silicone. Wood glazing stops were employed at the interior and secured with 1/8" by 1 -1/8" staples, spaced approximately 6" to 8" on center.

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Test Specimen Description:(con't)

Frame Construction: Frame head and jambs were comprised of aluminum clad wood members with the sill corners square-cut and fastened with two (2) #8 by 3" screws and one (1) #6 by 5/8" screw per corner with a plastic key to secure the sill to jamb. A foam gasket was applied between the sill end and to the vertical jamb. Silicone sealant was utilized at the sill corners. The top corners were coped and fastened with plastic corner keys and two (2) #8 by 2 -1/2" screws and one (1) #6 by 5/8" screw per corner. The sill was a two-part aluminum and pine sill with a sloped oak threshold set onto a bed of sealant and fastened with nine (9) #8 by 1 -1/2" screws spaced approximately 8" on center. The metal sill strike was secured with three (3) #10 by 2 -1/2" stainless steel screws. A metal plate using eight (8) #8 by 1" stainless steel screws was secured to the top of the jamb for reinforcement. The vinyl sill strike was secured with a foam gasket and two (2) #6 by 3/4" screws. The head strike plate was secured with three (3) #10 by 2 -1/2" stainless steel screws on the back side and two (2) #10 by 1 -1/2" stainless steel screws on the front side. There is a plastic end cap at each end of the aluminum sill.

Panel Construction: Panel members were comprised of aluminum clad wood, with the corners square-cut, glued and doweled. The top corners utilized two dowels and the bottom corners utilized three per joint with each dowel end stapled with one (1) 2" T-nail per side. An all-wood astragal cap was fastened to the astragal with #6 by 2 -3/4" screws spaced 3" from each end and 6" on center, with vinyl flaps applied to the top and bottom of astragal. Four (4) panel plates were used at each panel to secure the rails to stiles at panel joints. They were fastened with six (6) #10 by 2 -1/2" stainless steel screws per plate per corner of panel. The astragal was fastened to the inactive panel with fourteen (14) #8 by 3" screws.

Weatherstripping:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Foam-filled Santoprene angle-shape with rigid polypropylene base	1 row	Jambs, sill, head and both sides of center astragal
Dual durometer drip cap	1 row	Top of panels to exterior
Dual durometer sweep strip	1 row	Bottom of each panel

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
5-point lock with keepers	1	Locks positioned 9", 56", 83" from top rail and one at top and bottom rail. Operating handle 36" from bottom rail
Lever-lock	1	Located at inactive panel at center



Test Specimen Description:(con't)

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Lever lock/Shoot bolt with keepers in head and sill	2	Shoot bolts, projecting out at top and bottom of inactive panel center stile
Hinges	4	Active/Inactive hinge stiles, from bottom of panel to center of hinge 9", 34", 59" and 84

Installation: The door was installed into a nominal 2" by 6" wood buck/wall and secured at the nailing flange with 2" roofing nails spaced 3" from each corner and 4" on center. Sealant was applied at the interior side of the integral nailing flange, nail heads and flange engagement surface. Sealant was also applied to the exterior perimeter of flange. Two (2) #8 by 3" screws were also utilized through each hinge into the wood buck. The sill was secured to the wood buck with silicone sealant between the sill and frame buck.

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	0.05 cfm/ft ²	0.3 cfm/ft ²
	@ 6.24 psf	0.10 cfm/ft ²	-----
<i>The test specimen meets (or exceeds) the performance levels specified in ANSI/AAMA/WDMA 101/I.S.2-97 for a HGD-LC60 door, 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 (Set) ASTM E 330-97 Astragal (Span = 91.625") @ 37.50 psf (positive) @ 37.50 psf (negative)	0.021" 0.033"	0.4% of L = 0.367" 0.4% of L = 0.367"

Test Results:(con't)

Optional Performance:

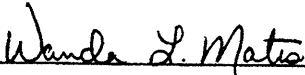
<u>Paragraph</u>	<u>Title of Test</u>	<u>Results</u>	<u>Allowed</u>
4.3	Water Resistance ASTM E 547-96 @ 12.00 psf	No entry	No entry @ 9.0 psf
4.4.2	Uniform Load Structural (Set) ASTM E 330-97 Astragal (Span = 91.625") @ 90.0 psf (positive) @ 90.0 psf (negative)	0.050" 0.080"	0.4% of L = 0.367" 0.4% of L = 0.367"

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.

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