



Architectural Testing
ANSI/AAMA/WDMA STRUCTURAL TEST REPORT

Rendered to:

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

ATI Report No: 06-30232.01
Test Dates: 07/17/01
and: 07/26/01
Report Date: 08/21/01
Expiration Date: 07/17/05

Series/Model: 8-0 x 8-0 Clad CHES Sliding Patio 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 SGD-C35 95 x 96 (X,O) performance requirements.

ASTM F 842-97, "Standard Test Methods for Measuring the Forced Entry Resistance of Sliding Door Assemblies, Excluding Glazing Impact."

Test Specimen Description:

Overall Size: 94 -5/8" wide by 96 -3/8" high

Panel Size(s): 47 -1/2" wide by 93 -1/2" high

Overall Area: 63.33 ft²

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

Glazing: The panels utilized nominal 1" thick sealed insulating glass composed from two sheets of 5/32" clear tempered glass separated by a nominal 11/16" Intercept metal spacer. The glass was set from the exterior against a 9/16" wide double sided adhesive closed cell foam tape. Aluminum glazing stops, with foam tape, were employed at the exterior and secured with #6 by 5/8" fasteners, 12" on center. Silicone sealant was also applied in all corners of the glazing cavity.

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Test Specimen Description:(con't)

Frame Construction: The head and jambs consisted of molded pine sections which were made of finger jointed lumber. The upper frame corners were dadoed, sealed with silicone and secured with three (3) #6 by 1 -1/2" screws per corner. The fiberglass sill was secured by three (3) #8 by 1 -3/4" screws. The lower frame corners utilized corner keys, foam gaskets, and silicone sealant which was applied between the fiberglass sill profile and the foam gasket. The head parting stop was secured with eight (8) #6 by 1 -1/4" screws. The fiberglass stationary sill stop was secured with three (3) #10 by 1 -1/2" screws. Extruded aluminum cladding was mitered, corner keyed at top and snap fit.

Panel Construction: The pine panel members with extruded aluminum cladding at the exterior were mortise and tenon construction and were secured with two (2) staples per corner. The stationary panel was sealed continuous with silicone sealant.

Weatherstripping:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.360" dia. PVC bulb	1 row	Vertical interlock of stationary panel
0.270" backed wide by 0.350" height wool pile	1 row	Vertical interlock of both panels
Vinyl leaf	1 row	Interior panel stops at vertical jambs
Flexible vinyl leaf	1 row	Continuous at fiberglass sill
Dual durometer PVC	1 row	Frame jambs and head
Dust block/pad	1	Sill, below interlocking stiles

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Cam lock w/strike plate	1	Locking stile and adjacent frame at 39" from bottom rail to centerline
Zinc dichromate rollers w/ steel ball bearings	2	Operable panel bottom rail
Rubber bumper	1	Sill track of operable panel
Nylon guide blocks	2	1/4 points of operable panel top rail
Anti-theft brackets	3	One (1) at top and two (2) at bottom of stationary panel interlocking stile,
Nylon end caps	2	Ends of stationary sill stop, 1 each



Test Specimen Description:(con't)

Drainage:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.300" by 1.06" cope out	2	Ends of fiberglass sill, with foam baffle at operable side
0.500" by 0.276" slot	2	5" in from each end of stationary sill stop exterior leg
0.750" by 0.114" slot	1	Nylon end cap, back with foam baffle

Installation: The test specimen was installed into a wood frame surround, utilizing the nailing/mounting fin at the head and vertical jamb conditions with 2" roofing nails, spaced 4" on center. A continuous bead of silicone was employed between the nailing fin and the wood test chamber.

Test Results:

<u>Paragraph</u>	<u>Title of Test</u>	<u>Results</u>	<u>Allowed</u>
2.2.19.5.1	Operating Force		
	Open (Initiate)	25 lb.	30 lb.
	Close (Initiate)	20 lb.	30 lb.
	Operating Force		
	Open (Maintain)	17 lb.	20 lb.
	Close (Maintain)	15 lb.	20 lb.
2.1.2	Air Infiltration ASTM E 283-91 @ 1.57 psf	0.06 cfm/ft ²	0.3 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 SGD-C35 door, for air infiltration</i>			
2.1.3	Water Resistance ASTM E 547-96 (with and without screen) @ 4.50 psf	No entry	No entry @ 4.50 psf
2.1.4.2	Uniform Load Structural (Set) ASTM E 330-97 Meeting Stile (Span = 93.50")		
	@ 45.00 psf (positive)	0.201"	0.4% of L = 0.374"
	@ 45.00 psf (negative)	0.184"	0.4% of L = 0.374"



Test Results:(con't)

<u>Paragraph</u>	<u>Title of Test</u>	<u>Results</u>	<u>Allowed</u>
2.2.19.5.2	Deglazing Test		
	ASTM E 987-88		
	Left stile @ 70 lbs.	0.06"/12%	0.500"/100%
	Right stile @ 70 lbs.	0.06"/12%	0.500"/100%
	Top rail @ 50 lbs.	0.06"/12%	0.500"/100%
	Bottom rail @ 50 lbs.	0.06"/12%	0.500"/100%
2.1.8	Forced Entry Resistance ASTM F 842 (Grade 10)	No entry	No entry

Optional Performance:

<u>Paragraph</u>	<u>Title of Test</u>	<u>Results</u>	<u>Allowed</u>
4.3	Water Resistance		
	ASTM E 547-96 (with and without screen) @ 6.00 psf	No entry	No entry @ 5.25 psf
4.4.2	Uniform Load Structural (Set)		
	ASTM E 330-97		
	Meeting Stile (Span = 93.50")		
	@ 52.50 psf (positive)	0.235"	0.4% of L = 0.374"
	@ 52.50 psf (negative)	0.215"	0.4% of L = 0.374"

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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