



AAMA/NWDA 101/I.S.2-97
TEST REPORT SUMMARY

Rendered to:

GORELL ENTERPRISES, INC.

SERIES/MODEL: 5352
TYPE: Horizontal Sliding Window (XX)

Title of Test	Results
Rating	HS-LC30 69 x 54
Overall Design Pressure	30 psf
Operating Force	8 lb max.
Air Infiltration	0.15 cfm/ft ²
Water Resistance	4.50 psf
Structural Test Pressure	45.0 psf
Deglazing	Passed
Forced Entry Resistance	Grade 10

Reference should be made to Report No. 01-39988.01 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.


John C. McClane, Technician

JCM:nlb



Architectural Testing

AAMA/NWWDA 101/I.S.2-97 TEST REPORT

Rendered to:

GORELL ENTERPRISES, INC.
138 Wayne Avenue
Indiana, Pennsylvania 15701

Report No: 01-39988.00
Test Dates: 08/31/01
Through: 09/06/01
Report Date: 10/15/01
Expiration Date: 09/06/05

Project Summary: Architectural Testing, Inc. (ATI) was contracted to perform tests on a Series/Model 5352, horizontal sliding window (XX). The sample tested successfully met the performance requirements for an HS-LC30 69 x 54 rating.

Test Specification: The test specimen was evaluated in accordance with the following:

AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.*

Test Specimen Description:

Series/Model: 5352

Type: Horizontal Sliding Window (XX)

Overall Size: 5' 9" wide by 4' 6" high

Interior Sash Size: 2' 9-3/4" wide by 4' 1-11/16" high

Exterior Sash Size: 2' 9-3/4" wide by 4' 1-11/16" high

Screen Size: 2' 8-3/8" wide by 4' 1-5/8" high

Finish: All vinyl was white

Glazing Details: Each sash utilized 7/8" thick sealed insulating glass fabricated from two sheets of 1/8" clear annealed glass and a butyl metal spacer system. The sash were exterior glazed against dual-sided adhesive foam glazing tape and secured with a dual durometer vinyl glazing bead.

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Test Specimen Description: (Continued)

Weatherstripping:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.187" backed by 0.230" floating polypile	1 Row	Interior locking rail
0.187" backed by 0.230" polypile with center fin	1 Row	Interior and exterior top and bottom rails
0.187" backed by 0.230" polypile with center fin	1 Row	Keeper rail
0.187" backed by 0.350" polypile	1 Row	Meeting rail
1-3/4" wide by 1/2" high insulation foam	1 Row	Exterior perimeter of frame

Frame Construction: All frame members were constructed of extruded vinyl. All corners were mitered and welded.

Sash Construction: All sash members were constructed of extruded vinyl. All corners were mitered and welded.

Screen Construction: All screen members were constructed of extruded aluminum. The corners were keyed and the screen was held-in-place with a flexible vinyl spline.

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Push button sweep lock with keeper	2	Meeting stiles, 10" from each end
Roller assembly	4	One at each end of bottom rails
Vent security latch	2	One at top and bottom rail of exterior sash 4-1/4" in from keeper rail
Metal tension spring	2	One at each end of top rail of screen



Test Specimen Description: (Continued)

Drainage:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
3/8" wide by 1/16" high weepslot	2	One at each end of exterior face of screen track
1/4" wide by 1/2" long weepslot	4	One at each end of interior and exterior sill track
1-3/8" wide by 3/16" weepslot with cover	4	Two at each end of exterior face of sill

Reinforcement: No reinforcement was utilized.

Installation: Specimen was installed into a 2 x 8 Spruce-Pine-Fir #2 wood test buck. 1/2" by 1/2" wood blind stops were utilized on the interior and exterior perimeter and secured with brad nails every 8" on center. The specimen was sealed with silicone on the interior and exterior perimeter with the exception of 6" gaps in the sealant at each interior sill corner.

Test Results:

The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.2.5.1	Operating Force	8 lbs	25 lbs max.
2.1.2	Air Infiltration per ASTM E 283 (See Note #1) @ 1.57 psf (25 mph)	0.15 cfm/ft ²	0.30 cfm/ft ² max.
<i>Note #1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/NWWDA 101/I.S. 2-97 for air infiltration.</i>			
2.1.3	Water Resistance per ASTM E 547-96 (with and without screen) WTP = 3.75 psf	No leakage	No leakage
2.1.4.2	Uniform Load Structural per ASTM E 330-97 (Indicators located on the meeting rail) @ 37.5 psf (positive) @ 37.5 psf (negative)	0.01" 0.10"	0.195" max. 0.195" max.



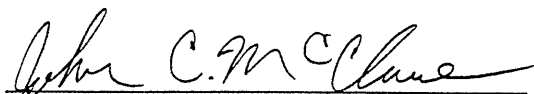
Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.2.5.2	Deglazing Test per ASTM E 987 In operating direction at 70 lbs		
	Left rail	0.062"/12%	0.50"/100%
	Right rail	0.062"/12%	0.50"/100%
	Left rail	0.062"/12%	0.50"/100%
	Right rail	0.062"/12%	0.50"/100%
	In remaining direction at 50 lbs		
	Top rail	0.062"/12%	0.50"/100%
	Bottom rail	0.062"/12%	0.50"/100%
	Top rail	0.062"/12%	0.50"/100%
	Bottom rail	0.062"/12%	0.50"/100%
2.1.7	Welded Corner Test	Meets as stated	Meets as stated
2.1.8	Forced Entry Resistance per ASTM F 588-97		
	Type: A		
	Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Test A1 thru A 7	No entry	No entry
	Lock Manipulation Test	No entry	No entry
<u>Optional Performance</u>			
4.3	Water Resistance per ASTM E 547-96 (with and without screen) WTP = 4.50 psf	No leakage	No leakage
4.4.2	Uniform Load Structural per ASTM E 330-97 (Indicators located on the meeting rail)		
	@ 45.0 psf (positive)	0.04"	0.195" max.
	@ 45.0 psf (negative)	0.18"	0.195" max.




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.

For ARCHITECTURAL TESTING, INC:



John C. McClane
Technician



David A. Kranz
Director - Product/Physical Testing

JCM:nlb
01-39988.01



DOCUMENT CONTROL ADDENDUM #01-39988.00

Current Issue Date: 10/15/01

Report No.: 01-39988.01

Requested by: Rich Gibson, Gorell Enterprises, Inc.

Purpose: AAMA/NWWDA 101/I.S.2-97 testing of Series/Model 5352 horizontal sliding window (XX).

Issued Date: 10/15/01

Comments: Certification copy to John Smith at Associated Laboratories, Inc.