

TEST REPORT

Report No.: C6729.01-109-47

Rendered to:

MI WINDOWS AND DOORS, LLC
Gratz, Pennsylvania

PRODUCT TYPE: PVC Fixed Window
SERIES/MODEL: 4300

SPECIFICATION: AAMA/WDMA/CSA 101/I.S.2/A440-08, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

Title	Summary of Results
Primary Product Designator	Class LC-PG50 1829 x 2438 (72 x 96)-FW
Design Pressure	±2400 Pa (±50.13 psf)
Air Infiltration	0.2 L/s/m ² (0.04 cfm/ft ²)
Water Penetration Resistance Test Pressure	360 Pa (7.52 psf)

Test Completion Date: 04/10/2013

Reference must be made to Report No. C6729.01-109-47, dated 05/07/13 for complete test specimen description and detailed test results.



1.0 Report Issued To: MI Windows and Doors, LLC
P.O. Box 370
650 West Market Street
Gratz, Pennsylvania 17030-0370

2.0 Test Laboratory: Architectural Testing, Inc.
130 Derry Court
York, Pennsylvania 17406-8405
717-764-7700

3.0 Project Summary:

3.1 Product Type: PVC Fixed Window

3.2 Series/Model: 4300

3.2.1 This product also labeled under the following names: 4300SDLITES, 4300T, NBPW, NBSDLITES, NBT, S-4300PW, S-4300SDLITES, S-4300T, W-4300PW, W-4300SDLITES, W-4300T, 4340PW, 4340SDLITES, 4340T, S-4340PW, S-4340SDLITES, S-4340T, W-4340PW, W-4340SDLITES, W-4340T, and 1355PW.

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test method(s). The specimen tested successfully met the performance requirements for a **Class LC-PG50 1829 x 2438 (72 x 96)-FW** rating.

3.4 Test Dates: 03/11/2013 - 04/10/2013

3.5 Test Record Retention End Date: All test records for this report will be retained until May 7, 2017.

3.6 Test Location: MI Windows and Doors, LLC test facility in Gratz, Pennsylvania. Calibration of test equipment was performed by Architectural Testing in accordance with AAMA 205-01 "In-Plant Testing Guidelines for Manufacturers and Independent Laboratories".

3.7 Test Sample Source: The test specimen was provided by the client. Representative samples of the test specimen(s) will be retained by Architectural Testing for a minimum of four years from the report completion date.

3.8 Drawing Reference: The test specimen drawings have been reviewed by Architectural Testing and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Architectural Testing per the drawings on file with Architectural Testing. Any deviations are documented herein or on the drawings.



3.0 Project Summary: (Continued)

3.9 List of Official Observers:

<u>Name</u>	<u>Company</u>
Rick Sawdey	MI Windows and Doors, LLC
Aaron M. Shultz	Architectural Testing, Inc.
Jeremy R. Bender	Architectural Testing, Inc.

4.0 Test Specification(s):

AAMA/WDMA/CSA 101/I.S.2/A440-08, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 4.5 m ² (48.0 ft ²)	Width		Height	
	millimeters	inches	millimeters	inches
Overall size	1829	72	2438	96

5.2 Frame Construction:

Frame Member	Material	Description
Head, sill, and jambs	PVC	Extruded
Track filler	PVC	Extruded, snap-fit to interior track on head, sill, jambs and intermediate frame jambs

	Joinery Type	Detail
Head, sill, and jambs	Mitered and welded	Thermoplastic weld

5.3 Weatherstripping: No weatherstripping was utilized.

**5.0 Test Specimen Description:** (Continued)

5.4 Glazing: *No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.*

Glass Type	Spacer Type	Interior Lite	Exterior Lite	Glazing Method
3/4" IG	Metal reinforced butyl	3/16" clear tempered	3/16" clear tempered	Interior glazed against a bead of silicone, secured with snap-in glazing beads

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Fixed daylight opening	1	1708 x 2318	67-1/4 x 91-1/4	1/2"

5.5 Drainage:

Drainage Method	Size	Quantity	Location
Weephole	1/4" wide by 1/2" long	2	Glazing channel, 2" from each end
Weepslot	1/8" wide by 1-1/4" long	2	Sill face, 2" from each end

5.6 Hardware: No hardware was utilized.

5.7 Reinforcement: No reinforcement was utilized.

6.0 Installation:

The specimen was installed into a Spruce-Pine-Fir wood buck. The rough opening allowed for a 1/8" shim space. The exterior perimeter of the window was sealed with sealant.

Location	Anchor Description	Anchor Location
Head, sill, and jambs	#6 x 1-5/8" long drywall screws	3" from corners and spaced 8" on center through the mounting fin into the wood buck



7.0 Test Results: The temperature during testing was 21°C (70°F). The results are tabulated as follows:

Title of Test	Results	Allowed	Note
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.2 L/s/m ² (0.04 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Water Penetration, per ASTM E 547	N/A	N/A	3
Uniform Load Deflection, per ASTM E 330	N/A	N/A	3
Uniform Load Structural, per ASTM E 330	N/A	N/A	3
Forced Entry Resistance, per ASTM F 588, Type: D - Grade: 10	Pass	No entry	
Thermoplastic Corner Weld	Pass	Meets as stated	
Optional Performance			
Water Penetration, per ASTM E 547 at 360 Pa (7.52 psf)	Pass	No leakage	2
Uniform Load Deflection, per ASTM E 330 taken at left stile +2400 Pa (+50.13 psf) -2400 Pa (-50.13 psf)	5.8 mm (0.23") 6.6 mm (0.26")	Report Only	4, 5, 6
Uniform Load Structural, per ASTM E 330 taken at left stile +3840 Pa (+80.21 psf) -3840 Pa (-80.21 psf)	0.5 mm (0.02") 2.0 mm (0.08")	9.7 mm (0.38") max. 9.7 mm (0.38") max.	5, 6



7.0 Test Results: (Continued)

Note 1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/I.S.2/A440 for air leakage resistance.

Note 2: Without insect screen.

Note 3: The client opted to start at a pressure higher than the minimum required. Test results are reported under Optional Performance.

Note 4: The deflections reported are not limited by AAMA/WDMA/CSA 101/I.S.2/A440 for this product designation. The deflection data is recorded in this report for special code compliance and information only.

Note 5: Loads were held for 10 seconds.

Note 6: Tape and film were not used to seal against air leakage during structural testing.

Architectural Testing will service this report for the entire test record retention period. Test records that are retained such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation will be retained by Architectural Testing, Inc. for the entire test record retention period.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, Inc.

Jeremy R. Bender
Technician

Michael D. Stremmel, P.E.
Senior Project Engineer

JRB:dem

Attachments (pages): This report is complete only when all attachments listed are included.

Appendix-A: Alteration Addendum (1)

Appendix-B: Complete drawings packet on file with Architectural Testing, Inc.



Appendix A

Alteration Addendum

Alteration #1: Date - 03/13/2013
Cause for alteration – Left stile deglazed under -80.12 structural load
Remedial action taken – Unit was re-glazed



Architectural Testing

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Appendix B

Drawings

***Note:** Complete drawings packet on file with Architectural Testing, Inc.*