



TEST REPORT

Report No.: C5716.01-801-47

Rendered to:

CROFT LLC
Magnolia, MS

PRODUCT TYPE: Sliding glass door
SERIES/MODEL: 60

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	
	Test Specimen #1	Test Specimen #2
Primary Product Designator	Class R-PG25 2438 x 2007 (96 x 79) Type SD	Class R-PG30 1829 x 2007 (72 x 79) Type SD
Design Pressure	±1200 Pa (±25.06 psf)	±1440 Pa (±30.08 psf)
Air Infiltration	0.86 L/s/m ² (0.17 cfm/ft ²)	-
Water Penetration Resistance Test Pressure	260 Pa (5.43 psf)	-

Test Completion Date: 02/20/2013

Reference must be made to Report No. C5716.01-801-47 dated 02/20/13 for complete test specimen description and detailed test results.

1.0 Report Issued To: Croft LLC.
PO Box 826
McComb, Mississippi 39649

2.0 Test Laboratory: Architectural Testing, Inc.
2865 Market Loop
Southlake, Texas 76092
817-410-7202

3.0 Project Summary:

3.1 Product Type: Sliding glass door

3.2 Series/Model: 60

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 rating. Class R-PG25 2438 x 2007 (96 x 79), Type SD and Class R-PG30 1829 x 2007 (72 x 79), Type SD.

3.4 Test Dates: 01/30/2013 - 02/19/2013

3.5 Test Record Retention End Date: All test records for this report will be retained until February 19, 2017.

3.6 Test Location: Croft LLC. test facility in Magnolia, MS. 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 will be retained by Architectural Testing for a minimum of four years from the test 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 located in Appendix B. Any deviations are documented herein or on the drawings.

3.9 List of Official Observers:

<u>Name</u>	<u>Company</u>
Dennis Anders	Croft LLC
Paul Osbey	Croft LLC
Clint Barnett	Architectural Testing, Inc.

4.0 Test Specification(s):

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

5.0 Test Specimen Description:

5.1 Product Sizes:

Test Specimen #1:

Overall Area: 4.9 m ² (53 ft ²)	Width		Height	
	millimeters	inches	millimeters	inches
Overall size	2438	96	2018	79-7/16
Moving panel	1232	48-1/2	1949	76-3/4
Screen	1236	48-11/16	1956	77

Test Specimen #2:

Overall Area: 3.7 m ² (39.50 ft ²)	Width		Height	
	millimeters	inches	millimeters	inches
Overall size	1969	71-1/2	2019	79-1/2
Moving panel	927	36-1/2	1957	77-1/16

The following descriptions apply to all specimens.

5.2 Frame Construction:

Frame Member	Material	Description
All members	Vinyl	Custom extruded

	Joinery Type	Detail
All corners	Mitered & welded	Thermoplastic welded

5.3 Panel Construction:

Panel Member	Material	Description
All members	Vinyl	Custom extruded

	Joinery Type	Detail
All corners	Mitered & welded	Thermoplastic welded

5.0 Test Specimen Description: (Continued)

5.4 Weatherstripping:

Description	Quantity	Location
0.187" x 0.290" pile with fin	1 Row	Fixed panel stile
0.187" x 0.290" pile with fin	1 Row	Lock stile interior and exterior face
0.187" x 0.290" pile with fin	1 Row	Panel interlock stile exterior face
0.187" x 0.290" pile with fin	1 Row	Top rail interior and exterior face
0.187" x 0.290" pile with fin	1 Row	Bottom rail interior and exterior face

5.5 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	Alum. U-shaped	5/32" Tempered	5/32" Tempered	Exterior wet glazed

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Moving panel Specimen # 1	1	1111 x 1829	43-3/4 x 72	0.50
Fixed lite # 1	1	1111 x 1829	43-3/4 x 72	0.50
Moving panel Specimen # 2	1	806 x 1830	31-3/4 x 72-1/16	0.50
Fixed lite Specimen #2	1	806 x 1830	31-3/4 x 72-1/16	0.50

5.6 Drainage:

Drainage Method	Size	Quantity	Location
Weep notch	1" x 1/4"	4	Frame head and sill one on each end
Weep notch	1/2" x 1/8"	4	Frame head and sill outer screen track
Weep notch	1" x 1/4"	4	Upper and lower sash track one on each end
Weep notch	1" x 1/4"	4	Interior channel of frame head and sill, one on each end
Cut out notch	1-5/8" x 11/16"	2	Aluminum roller track one on each end

5.0 Test Specimen Description: (Continued)

5.7 Hardware:

Description	Quantity	Location
Handle hardware kit	1	Panel lock stile
Roller assembly	2	Moving panel bottom rail

5.8 Reinforcement:

Drawing Number	Location	Material
P46001	Meeting rail	Galvanized steel
P46001	Lock panel stile	Galvanized steel
P46001	Panel stile	Galvanized steel

5.9 Screen Construction:

Frame Material	Corner Construction	Mesh Type	Mesh Attachment Method
Extruded aluminum	Plastic Corner Keys	Fiberglass	Flexible vinyl spline

6.0 Installation:

The specimen was installed into a Spruce-Pine-Fir wood buck. A wood 2 x 2 was secured over the nail fin full perimeter. The rough opening allowed for a 1/4" shim space. The window was secured to the wood buck with sealant located behind the nail fin.

Location	Anchor Description	Anchor Location
Head, Sill, Jamb	1-1/4" wood screw	2" from each corner then 12" full perimeter

7.0 Test Results: The temperature during testing was 22°C (71°F). The results are tabulated as follows:

Test Specimen #1:

Title of Test	Results	Allowed	Note
Operating Force, per ASTM E 2068	Initiate motion: 107 N (24 lbf) Maintain motion: 90 N (20 lbf) Locks: 18 N (4 lbf)	135 N (30 lbf) max. 90 N (20 lbf) max. 100 N (22.5 lbf) max.	
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.86 L/s/m ² (0.17 cfm/ft ²)	1.5 L/s/m ² (0.30 cfm/ft ²) max.	1
Water Penetration, per ASTM E 331 at 140 Pa (2.92 psf)	N/A	N/A	3
Uniform Load Deflection, per ASTM E 330 taken at meeting rail +720 Pa (+15.04 psf) -720 Pa (-15.04 psf)	N/A	N/A	3
Uniform Load Structural, per ASTM E 330 taken at meeting rail +1080 Pa (+22.56 psf) -1080 Pa (-22.56 psf)	N/A	N/A	3
Forced Entry Resistance, per ASTM F 842, Type: A - Grade: 10	Pass	No entry	
Thermoplastic Corner Weld	Pass	Meets as stated	
Deglazing, per ASTM E 987 Operating direction, 320 N (70 lbf) Remaining direction, 230 N (50 lbf)	Pass Pass	Meets as stated Meets as stated	

7.0 Test Results: (Continued)

Optional Performance			
Water Penetration, per ASTM E 331 at 260 Pa (5.43 psf)	Pass	No leakage	2
Uniform Load Deflection, per ASTM E 330 taken at meeting rail +1200 Pa (+25.06 psf) -1200 Pa (-25.06 psf)	22 mm (0.87") 22 mm (0.86")	Report Only	4, 5, 6
Uniform Load Structural, per ASTM E 330 taken at meeting rail +1800 Pa (+37.59 psf) -1800 Pa (-37.59 psf)	1 mm (0.02") 1 mm (0.02")	8 mm (0.30") max. 8 mm (0.30") max.	5, 6

Test specimen # 2:

Optional Performance			
Uniform Load Deflection, per ASTM E 330 taken at meeting rail +1440 Pa (+30.08 psf) -1440 Pa (-30.08 psf)	22 mm (0.87") 22 mm (0.88")	Report Only	4, 5, 6
Uniform Load Structural, per ASTM E 330 taken at meeting rail +2160 Pa (+45.11 psf) -2160 Pa (-45.11 psf)	6 mm (0.24") 2 mm (0.07")	8 mm (0.30") max. 8 mm (0.30") 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: With and 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 used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.

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.



Digitally Signed by: Clint Barnett

Clint Barnett
Technician



Digitally Signed by: Andy Cost

Andy Cost
Laboratory Manager

CB:ac

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

Appendix-A: Alteration Addendum (1)

Appendix-B: Drawings (13) complete drawings packet on file with Architectural Testing, Inc.

This report produced from controlled document template ATL 00438, issued 01/31/12.