



TEST REPORT

Report No.: A6963.01-301-44

Rendered to:

ALL WEATHER ARCHITECTURAL ALUMINUM
Vacaville, California

PRODUCT TYPE: 8000

SERIES/MODEL: Aluminum XO Sliding Glass Door

SPECIFICATION: AAMA/WDMA/CSA 101/1.S.2/A440-05, *Standard/Specification for Windows, Doors, and Unit Skylights.*

Title	Summary of Results
Primary Product Designator	SGD-C30 2411 x 2107 (95 x 83)
Design Pressure	± 1440 Pa (± 30.08 psf)
Air Infiltration	1.17 L/s/m ² (0.23 cfm/ft ²)
Water Penetration Resistance Test Pressure	220 Pa (4.59 psf)

Test Completion Date: 03/29/2011

Reference must be made to Report No. A6963.01-301-44, dated 05/17/11 for complete test specimen description and detailed test results.

1.0 Report Issued To: All Weather Architectural Aluminum
777 Aldridge Road
Vacaville, California 95688

2.0 Test Laboratory: Architectural Testing, Inc.
2524 East Jensen Avenue
Fresno, California 93706
(559) 233 - 8705

3.0 Project Summary:

3.1 Product Type: 8000

3.2 Series/Model: Aluminum XO Sliding Glass Door

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test method. The specimen tested successfully met the performance requirements for a **SGD-C30 2411 x 2107 (95 x 83)** rating.

3.4 Test Dates: 01/12/2011 - 03/29/2011

3.5 Test Location: Architectural Testing, Inc. test facility in Fresno, California.

3.6 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.

3.7 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.

3.8 List of Official Observers:

<u>Name</u>	<u>Company</u>
Seamus Porter	All Weather Architectural-Aluminum
Jarod Hardman	Architectural Testing, Inc.
Jeffrey T. Osugi	Architectural Testing, Inc.

4.0 Test Specification(s):

AAMA/WDMA/CSA 101/I.S.2/A440-05, *Standard/Specification for Windows, Doors, and Unit Skylights*.

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 5.08 m ² (54.68 ft ²)	Width		Height	
	millimeters	inches	millimeters	inches
Overall size	2411	94-15/16	2107	82-15/16
Active panel	1221	48-1/16	2045	80-1/2
Fixed panel	1222	48-1/8	2045	80-1/2

5.2 Frame Construction:

Frame Member	Material	Description
Head, sill, jambs	Thermally broken aluminum	
Threshold cover	Aluminum	At sill of active panel.
Roller track	PVC with stainless steel cap	Snap fit to the sill and held back 1/2" from each end.
Frame track filler	Aluminum	Each jamb and the head at the active panel.
Fixed panel setting block	PVC	Utilized at the fixed panel sill and held back 3-1/4" from the jamb.
Panel stops	Aluminum with rubber bumper	Head and sill at the fixed panel jamb.
Weather stripping holder	PVC	All members of the frame center leg.

	Joinery Type	Detail
All corners	Coped	Secured with three #8 x 1-1/2" square drive pan head screws and sealed with seam sealer.

5.0 Test Specimen Description: (Continued)

5.3 Panel Construction:

Panel Member	Material	Description
All members	Thermally broken aluminum	The active panel interlocks were held back 3/4" from the bottom rail and 1-5/8" from the top rail. The fixed panel interlocks were held back 3/4" from the bottom rail and 1-5/8" from the top rail. The fixed panel was secured through the frame with #10 x 1" Phillips pan head self drilling screws approximately 24" from each end.

	Joinery Type	Detail
All corners	Butt jointed	Secured with two #8 x 3" square drive pan head screws.

5.4 Weatherstripping:

Description	Quantity	Location
0.230" high polypile with triple center fin	4 Rows	Head, sill and fixed panel jamb at the exterior track.
0.190" high polypile with triple center fin	4 Rows	Head, sill and active panel jamb at the interior track.
0.550" high polypile with triple center fin	1 Row	Each meeting stile.
0.230" high polypile with triple center fin	1 Row	Fixed panel meeting stile.
0.190" high polypile with triple center fin	1 Row	Active panel meeting stile.

5.5 Glazing:

Glass Type	Spacer Type	Interior Lite	Exterior Lite	Glazing Method
1" IG	Aluminum spacer	1/8" tempered	1/8" tempered	Channel glazed and secured with a rubber boot.

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Active panel	1	1071 x 1845	42-3/16 x 72-5/8	3/4"
Fixed panel	1	1073 x 1845	42-1/4" x 72-5/8	3/4"

5.0 Test Specimen Description: (Continued)

5.6 Drainage:

Drainage Method	Size	Quantity	Location
Weepnotch	5/8" x 1/4"	2	Each end in sill screen track.
Weephole	3/4" x 3/16" oval	2	3/8" from each end through exterior sill leg.
Weepnotch	1" x 1/8"	2	1/2" from each end through intermediate leg in exterior sill track.
Weephole	1" x 1/4"	3	1-1/2" from each end and midspan through center sill leg.

5.7 Hardware:

Description	Quantity	Location
Stainless steel rollers	2	9-1/4" from each end on bottom rail of active panel secured with two 1/4" -20 x 3/4" Phillips pan head screws with washers.
Lock handle assembly with deadbolt	1	45" from bottom rail secured through the handle assembly with two 8-32 x 1-3/4" Phillips oval head screws and to the lock stile with two #10 x 1" Phillips flat head self drilling screws
Keeper	1	Opposite lock secured with four #10 x 3" Phillips pan head screws.

5.8 Reinforcement: No reinforcement was utilized.

5.9 Screen Construction: No screen was utilized

6.0 Installation:

The specimen was installed into a Spruce-Pine-Fir wood buck. The rough opening allowed for a 1/4-1/8" shim space. The exterior perimeter of the window was sealed with silicone.

Location	Anchor Description	Anchor Location
Head, jambs	#12 x 1-1/4" Phillips flat head screws.	3" from each end and 11-16" on center.

7.0 Test Results: The temperature during testing was 19°C (66°F). The results are tabulated as follows:

Title of Test	Results	Allowed	Note
Operating Force, per ASTM E 2068	Initiate motion: 100 N (22.5 lbf) Maintain motion: 52 N (11.7 lbf) Lock: 16 N (3.5 lbf)	180 N (40.5 lbf) max. 115 N (25.9 lbf) max. 100 N (22.5 lbf) max.	
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	1.17 L/s/m ² (0.23 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Water Penetration, per ASTM E 547 at 220 Pa (4.59 psf)	Pass	No leakage	2
Uniform Load Deflection, per ASTM E 330 taken at exterior meeting stile +1440 Pa (+30.08 psf) -1440 Pa (-30.08 psf)	8.8 mm (0.35") 8.3 mm (0.33")	Report Only	4,5,6
Uniform Load Structural, per ASTM E 330 taken at exterior meeting stile +2160 Pa (+45.11 psf) -2160 Pa (-45.11 psf)	0.3 mm (0.01") 0.3 mm (0.01")	5.9 mm (0.23") max.	5,6
Forced Entry Resistance, per ASTM F 842, Type: A / D - Grade: 10	Pass	No entry	
Deglazing, per ASTM E 987 Operating direction, 320 N (71.9 lbf) Remaining direction, 230 N (51.7 lbf)	Pass Pass	Meets as stated Meets as stated	

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 used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.

The service life of this report will expire on the stated Test Record Retention End Date, at which time such materials as drawings, data sheets, samples of test specimens, copies of this report, and any other pertinent project documentation, shall be discarded without notice.

If test specimen contains glazing, no conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made. 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 for: Jeff Osugi by Marisela Saavedra

Jeffrey T. Osugi
Technician



Digitally Signed by: Leaton Kirk

Leaton Kirk
Director – Regional Operations

JTO: ms

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

Appendix-A: Alteration Addendum (1)

Appendix-B: Drawings (18)