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ALL WEATHER ARCHITECTURAL ALUMINUM TEST REPORT

SCOPE OF WORK
AAMA/WDMA/CSA 101/I.S.2/A440 TESTING ON SERIES 6200 HORIZONTAL SLIDING WINDOW, NOMINAL SIZE 71 X 59

REPORT NUMBER
M9474.01-301-44 R0

TEST DATES
10/28/21 – 11/01/21

ISSUE DATE
05/27/22

PAGES
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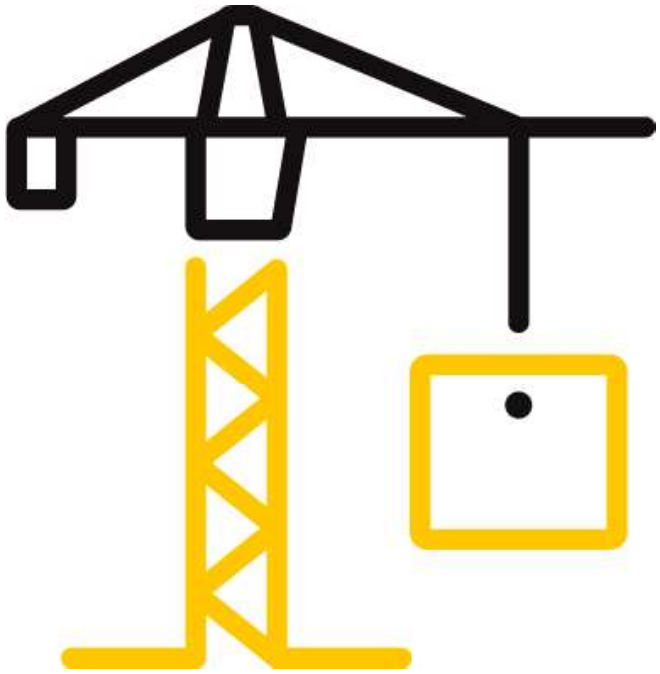

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TEST REPORT FOR ALL WEATHER ARCHITECTURAL ALUMINUM

Report No.: M9474.01-301-44 R0
Date: 05/27/22

REPORT ISSUED TO

ALL WEATHER ARCHITECTURAL ALUMINUM
777 Aldridge Road
Vacaville, CA 95688

SECTION 1

SCOPE

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by All Weather Architectural Aluminum to perform testing in accordance with AAMA/WDMA/CSA 101/I.S.2/A440 on their Series 6200 Horizontal Sliding Window. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at the Intertek B&C test facility in Fresno, California. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. Intertek B&C will service this report for the entire test record retention period. The test record retention period ends five years after the test date. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained for the entire test record retention period.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule, also called “Shared Risk approach,” of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

For INTERTEK B&C:

COMPLETED BY:	Ricardo Cortez	**REVIEWED BY:**	Tyler Westerling, P.E.
TITLE:	Technician	**TITLE:**	Operations Manager
SIGNATURE:	Digitally Signed by: Ricardo Cortez	**SIGNATURE:**	Digitally Signed by: Tyler Westerling
DATE:	05/27/22	**DATE:**	05/27/22

RC:ms

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SECTION 2
SUMMARY OF TEST RESULTS

TITLE	RESULTS
AAMA/WDMA/CSA 101/I.S.2/A440-17	Class CW – PG35; Size Tested: 1805 x 1500 mm (71 x 59 in) Type: HS
Design Pressure	±1680 Pa (±35.09 psf)
Air Infiltration	<0.1 L/s/m^2 (0.06 cfm/ft^2)
Canadian Air Infiltration/Exfiltration Level	A3
Water Penetration Resistance Test Pressure	260 Pa (5.43 psf)

Reference must be made to Intertek B&C Report No. M9474.01-301-44, dated 05/27/22 for complete test specimen description and detailed test results.

SECTION 3
TEST SPECIFICATION(S)/METHOD(S)

The specimen was evaluated in accordance with the following:

AAMA/WDMA/CSA 101/I.S.2/A440-17- *North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

The following test methods were used during testing:

ASTM E2068-00(2016), *Standard Test Method for Determination of Operating Force of Sliding Windows and Doors*

ASTM E283-04(2012), *Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen*

ASTM E547-00(2016), *Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference*

ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

ASTM F842-17, *Standard Test Methods for Measuring the Forced Entry Resistance of Sliding Door Assemblies, Excluding Glazing Impact*

ASTM E987-88(2017), *Standard Test Methods for Deglazing Force of Fenestration Products*

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SECTION 4
MATERIAL SOURCE/INSTALLATION

Test specimen was provided by the client. Representative samples of the test specimen will be retained by Intertek B&C for a minimum of four years from the test completion date.

The specimen was installed into a Douglas-Fir buck. The rough opening allowed for a 1/4" shim space and the exterior perimeter of the specimen was sealed to the test buck.

LOCATION	ANCHOR DESCRIPTION	ANCHOR SPACING
Head, Sill	#6 x 1-5/8" Philips flat head screw	4" from corners, 10" on center
Jambs	#6 x 1-5/8" Philips flat head screw	4" from corners, 11" on center

SECTION 5
EQUIPMENT

The following equipment was utilized to apply Forced Entry Resistance loading in accordance with ASTM F588:

EQUIPMENT	ASSET NUMBERS	CALIBRATION DUE DATE
Load Cell	63196	04/01/22
Stopwatch	64263	11/20/22

SECTION 6
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Erick Dominguez	All Weather Architectural Aluminum
Meng Vang	Intertek B&C

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SECTION 7
TEST SPECIMEN DESCRIPTION

Product Type: Horizontal Sliding Window
Series/Model: Series 6200 Horizontal Slider

Product Sizes:

OVERALL AREA:	**WIDTH**		**HEIGHT**	
2.71 m² (29.1 ft²)	**Millimeters**	**Inches**	**Millimeters**	**Inches**
Overall size	1805	71-1/16	1500	59-1/16
Operable panel	910	35-13/16	1455	57-5/16
Screen	924	36-3/8	1467	57-3/4

Frame Construction:

MEMBER	**MATERIAL**	**DESCRIPTION**
Head, Jambs, Sill, Fixed Interlock	Aluminum with Thermal Break	Extruded (Mat'l. 6063-T6)
	JOINERY TYPE	**DETAIL**
All corners	Butted	Screwed and Sealed

Panel Construction:

MEMBER	**MATERIAL**	**DESCRIPTION**
Rails, Stiles	Aluminum with Thermal Break	Extruded (Mat'l. 6063-T6)
	JOINERY TYPE	**DETAIL**
All corners	Butted	Screwed and Sealed

Reinforcement: *No reinforcement was utilized.*

Weatherstripping:

DESCRIPTION	**QUANTITY**	**LOCATION**
Foam bulb gasket	2 sets	Frame – Interior/Exterior edge of panel channel
Polypile with center fin	1 row	Fixed Interlock

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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	LITE COMPOSITION	GLAZING METHOD
1" IG	Black super spacer	3/16" annealed, Interior/exterior	Rail/stile installed around IG - Vinyl gasket perimeter

LOCATION	QUANTITY	DAYLIGHT OPENING		GLASS BITE
		Millimeters	Inches	
Operable panel	1	910 x 1455	35-13/16 x 57-5/16	1/2"
Fixed Lite	1	910 x 1455	35-13/16 x 57-5/16	1/2"

Drainage:

METHOD	SIZE	QUANTITY	LOCATION
Slot	1" W by 1/8" H	2	Sill face
Weep with cover	1" W by 1/8" H	4	Sill channel – 4" from corners, 21" on center

Hardware:

DESCRIPTION	QUANTITY	LOCATION
Roller assembly	1 set	Operable sash – underside of bottom rail
Auto-lock + Keep	1 set	Midspan both Interlocks

Screen Construction:

FRAME MATERIAL	CORNER CONSTRUCTION	MESH TYPE	MESH ATTACHMENT METHOD
Aluminum	Plastic corner keys	Vinyl	Vinyl ridged spline

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SECTION 8

TEST RESULTS

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

TITLE OF TEST	RESULTS	ALLOWED	NOTE
Operating Force, per ASTM E2068			
Initiate Motion:	36 N (8 lbf)	180 N (40.47 lbf) max	
Maintain Motion:	36 N (8 lbf)	115 N (25.85 lbf) max	
Latches:	13 N (3 lbf)	100 N (22.48 lbf) max	
Air Leakage, Infiltration per ASTM E283 at 300 PA (6.27 psf)	<0.1 L/s/m^2 (0.06 cfm/ft^2)	1.0 L/s/m^2 (0.2 cfm/ft^2) max.	1, 2
Air Leakage, Exfiltration per ASTM E283 at 300 PA (6.27 psf)	<0.1 L/s/m^2 (0.05 cfm/ft^2)	1.0 L/s/m^2 (0.2 cfm/ft^2) max.	1, 2
Canadian Air Infiltration/Exfiltration Level	A2	0.5 L/s/m^2 (0.1 cfm/ft^2) max.	
Water Penetration, per ASTM E547 at 260 Pa (5.43 psf)	Pass	No leakage	3
Uniform Load Deflection, per ASTM E330 Deflections taken at Interlock			
+1680 Pa (+35.09 psf)	4.44 mm (0.18")	8.13 mm (0.32") max.	
-1680 Pa (-35.09 psf)	4.06 mm (0.16")	8.13 mm (0.32") max.	4
Uniform Load Structural, per ASTM E330 Permanent set taken at Interlock			
+2520 Pa (+52.63 psf)	0.13 mm (0.01")	4.27 mm (0.17") max.	
-2520 Pa (-52.63 psf)	0.25 mm (0.01")	4.27 mm (0.17") max.	4
Forced Entry Resistance, per ASTM F842, Type: A - Grade: 20	Pass	No entry	
Deglazing, per ASTM E987 Operating direction, 320 N (70 lbf)	Pass	Meets as stated	
Remaining direction, 230 N (50 lbf)	Pass	Meets as stated	

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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: Test Date 10/28/21 , Time: 10:09 AM (Air Note Only)
Note 3: *With and without insect screen.*
Note 4: *Loads were held for 10 seconds.*
Note 5: *Tape and film were not used to seal against air leakage during structural testing.*

SECTION 9
ALTERATIONS

No alterations were required.

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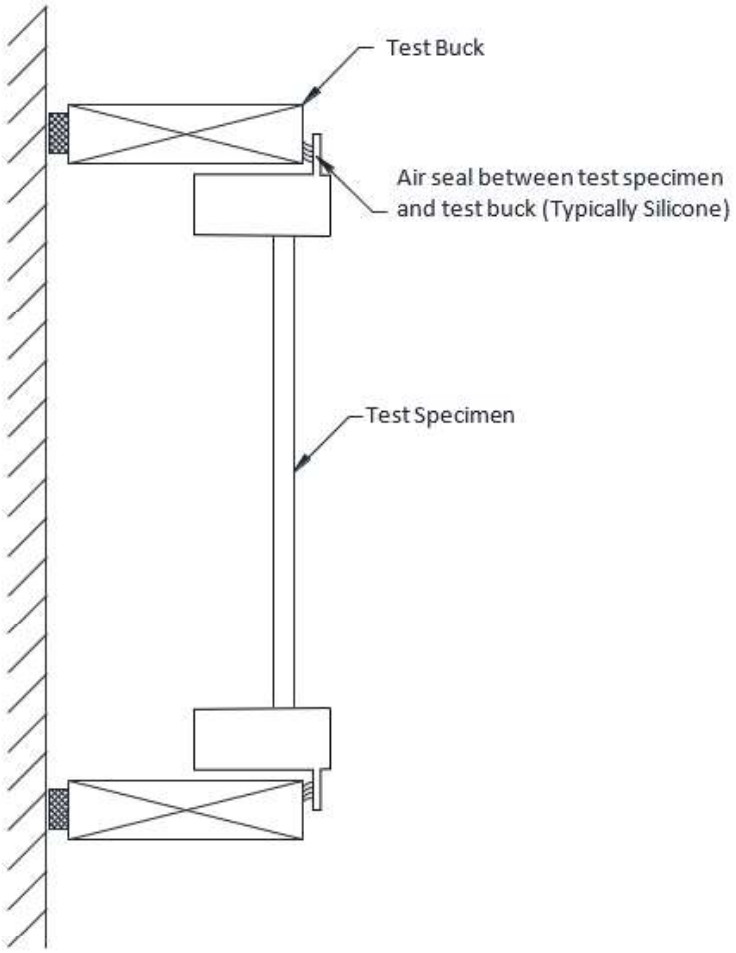
SECTION 10

LOCATION OF AIR SEAL

The air seal between the test specimen and the test wall is detailed below. The seal is made of foam weatherstripping and is attached to the edge of the test specimen buck. The test specimen buck is placed against the test wall and clamped in place, compressing the weatherstripping and creating a seal.



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SECTION 11
CONCLUSION

The specimen tested successfully met the performance requirements for the following rating:

Class CW – PG35; Size Tested: 1805 x 1500 mm (71 x 59 in) Type: HS

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SECTION 12
DRAWINGS

The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.