

Fenestration Testing Laboratory, Inc.

10235 8th Street • Rancho Cucamonga, CA 91730 • PH. (909) 477-4343 • FAX (909) 477-4348

Report No. : A09SD-051
Date : October 9, 2009
Page : 1 of 4

TESTED FOR

INTERNATIONAL WINDOW CORP.

5625 East Firestone Boulevard
South Gate, CA 90280

1.0 PURPOSE

The purpose of this report is to present the testing methods employed and the test results obtained during the performance testing of one (1) Aluminum Sliding Glass Door described in paragraph 4.0 of this report.

2.0 TEST REFERENCES

- 2.1 Standard Specification for Windows, Doors, and Skylights AAMA/WDMA/CSA 101/ I.S.2/A440-05
SD-LC25 3124 X 2438 (123 X 96)
- 2.2 CAWM 300-96 Forced Entry Resistance Test Results For Sliding Glass Doors

3.0 SUMMARY

The test results in paragraphs 5.0 and 6.0 indicate that the tested sample described in paragraph 4.0 of this report complied with the performance requirements of the above referenced specifications.

4.0 SAMPLE SUBMITTED

SERIES: 7620 Sliding Glass Door – 1-5/8” high threshold

CONFIGURATION: XO

FRAME SIZE: 3124 mm x 2438 mm (122.99” x 95.98”)

FIXED PANEL: 1524 mm x 2388 mm (60.00” x 94.02”)

ACTIVE PANEL: 1607 mm x 2388 mm (63.27” x 94.02”)

GLASS: Each panel was glazed with a 1” overall insulated glass unit containing 3/16” Low-E tempered glass on the outside and 3/16” clear tempered glass on the inside.

SPACER: All spacers were aluminum box type 5/8” wide.

GLAZING: Both panels were channel glazed with wrap around gasket.

WEEPAGE: The threshold contained the following weeps:

- 1) The leg between the active and fixed channels contained a 1.75” x 0.25” weep at 3.5” and 24.5” from each end. A gated weep cover was fitted into each weep hole.
- 2) The screen track and the fixed channel outside leg contained a pair of 1.06” x 0.18” weeps 6” from each end and 12” on center in the field for a total of 10 pairs.
- 3) The screen track was cut short 2” at each end.

WEATHERING:

The frame leg between active and fixed channels contained a strip of two finger vinyl full perimeter facing out.

The frame sliding channel contained two strips of 0.250" overall high polypile with center fin full perimeter -one strip facing in and one strip facing out.

Each interlock stile contained a PVC snap-on weather-strip raceway. The one on the active panel contained a strip of 0.250" high polypile with center fin facing out. The one on the fixed panel contained a strip of flap vinyl.

HARDWARE:

The operable panel bottom rail contained an adjustable tandem steel roller and housing at each end. Each roller fit into the bottom rail channel and was fastened to the abutting stile with a pair of screws and to the bottom rail with one screw.

The lock stile contained a recessed metal double mortise lock and recessed metal handle assembly fastened with a pair of screws 40" up from the bottom rail. When closed and locked, each hook lock tongue engaged a slot in the metal keeper which was fastened to the lock jamb with four #10 x 3.5" PPH screws.

CONSTRUCTION:

The frame corners were mechanically joined with a pair of #8 x 0.75" PPH screws. The active and fixed panel corners were each mechanically joined with a single #8 x 3" screw.

The fixed interlock was secured to the frame with an "L" shaped support block as shown on the drawings. The shorter leg fit into the interlock stile hollow at each end respectively. At the top end, this leg was fastened to the panel with the adjacent corner. At the bottom end, an additional #8 x 2" screw fastened the support block to the stile web. The longer leg of each block was fastened to the head and threshold respectively with a pair of #10 x 2" PPH screws.

The sill contained an aluminum snap-in fixed channel cover that fit snugly between the active jamb and fixed interlock.

The fixed and active interlocks each contained a PVC weather-strip raceway insert which snap fit over a leg on its respective interlock.

CAULKING:

The following were sealed:

1. The frame corners were sealed full profile.
2. The fixed panel jamb stile, top rail and bottom rail were sealed to the frame from the interior.
3. All six screw heads anchoring the threshold to the rough opening.

ANCHORING:

The frame was fastened to a 2" x 8" wooden rough opening with #8 x 1.5" screws every 16" through the nail-on fins at head and jambs.

The threshold was fastened with six #8 x 1.5" PPH screws evenly spaced across the sill span.

5.0 TEST PROCEDURES AND RESULTS

5.1 All testing procedures were performed in accordance with the performance requirements of the test specifications referenced in paragraph 2.0 of this report.

5.2 TEST RESULTS

<u>PARAGRAPH</u>	<u>TEST DESCRIPTION</u>	<u>MEASURED</u>	<u>ALLOWED</u>
5.3.1.1	Operating Force (ASTM E 2068) Breakaway Force Operating Force	67 N (15.1 lbf) 45 N (10.1 lbf)	135 N (30 lbf) 90 N (20 lbf)
5.3.1.1.3	Latching Device Open and Close Latch Device	4 N (0.9 lbf)	100 N (22.5 lbf)
5.3.2.1	Air Infiltration (ASTM E 283) 75 Pa (1.6 PSF) The tested specimen exceeds the performance requirements specified in AAMA/WDMA/CSA 101 / I.S.2 / A440 for air leakage resistance.	1.4 L/s•m ² 0.28 CFM/ft ²	1.5 L/s•m ² 0.3 CFM/ft ²
5.3.3.2	Water Penetration (ASTM E 547) 180 Pa (3.8 PSF) With and without screen	No Leakage	No Leakage
5.3.4.2	Uniform Load Deflection (ASTM E 330) 1200 Pa (25.0 PSF) POS 1200 Pa (25.0 PSF) NEG	25.50 mm (1.00") 26.25 mm (1.03")	Report Only Report Only
5.3.4.3	Uniform Load Structural (ASTM E 330) 1800 Pa (37.5 PSF) POS 1800 Pa (37.5 PSF) NEG	0.75 mm (0.03") 1.00 mm (0.04")	7.00 mm (0.38") 7.00 mm (0.38")
5.3.6.3	Deglazing (ASTM E 987) 320 N (70 lbf) Stiles 230 N (50 lbf) Rails	1% 0%	Less than 90% Less than 90%

6.0 5.3.5 ASTM F 842 Forced Entry Resistance Test Results For Sliding Glass Doors
Table A1.1 Grade 20

1.2.1 Type "A" Sliding Glass Door

10.2 Results of Operable Panel

	<u>TEST</u>	<u>RESULTS</u>	<u>DESCRIPTION</u>
A2.4.1	A2.1	Passed	No Entry
A2.4.2	A1	Passed	No Entry
A2.4.3	A2	Passed	No Entry
A2.4.4	A3	Passed	No Entry
A2.4.5	A4	Passed	No Entry
A2.4.6	A5	Passed	No Entry
A2.4.7	A6	Passed	No Entry
A2.4.9	A2.2	Passed	No Entry
A2.4.9	A2.3	Passed	No Entry

6.0 5.3.5 ASTM F 842 Forced Entry Resistance Test Results For Sliding Glass Doors (Cont'd)
Table A1.1 Grade 20

1.2.4 Type "D" Sliding Glass Door

10.5 Results of Fixed Panel

	<u>TEST</u>	<u>RESULTS</u>	<u>DESCRIPTION</u>
A2.7.1	A2.1	Passed	No Entry
A2.7.2	D1	Passed	No Entry
A2.7.3	D2	Passed	No Entry
A2.7.4	D3	Passed	No Entry
A2.7.5	A2.3	Passed	No Entry

6.1 5.3.5 CAWM 300-96 Forced Entry Resistance Test Results For Sliding Glass Doors

2.3.1 Type "I" Sliding Glass Door

6.1.2 Results of Operable Panel

	<u>TEST</u>	<u>RESULTS</u>	<u>DESCRIPTION</u>
6.1.1		Passed	No Entry
6.1.2.1	A	Passed	No Entry
6.1.2.2	B	Passed	No Entry
6.1.2.3	C	Passed	No Entry
6.1.2.4	G	Passed	No Entry
6.1.2.5	D	Passed	No Entry
6.1.2.6	E	Passed	No Entry
6.1.2.7	F	Passed	No Entry
6.1.2.8	G	Passed	No Entry.

6.1.5 Results of Fixed Panel

6.1.5.1	A	Passed	No Entry
6.1.5.2	B	Passed	No Entry
6.1.5.3	C	Passed	No Entry
6.1.5.4	G	Passed	No Entry

For a complete description of the tested sample refer to the attached cross section drawings.

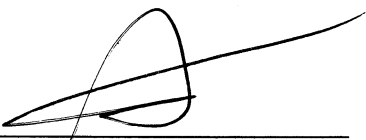
Assembly and die drawings of frame members are on file and have been compared to the sample submitted. Test sample sections, drawings, and a copy of this report will be retained at the test laboratory for four years.

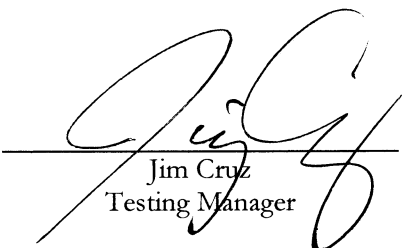
This test report may not be modified in any way without the written consent of Fenestration Testing Laboratory.

The preceding test results were obtained by using the applicable AAMA, ASTM and CAWM Test Methods. This report does not constitute Certification of this product. An approved Administrator/Validator can only grant certification.

Testing Completed: October 6, 2009

Report Completed: October 9, 2009


Pete Cruz
Test Engineer


Jim Cruz
Testing Manager