

# Fenestration Testing Laboratory, Inc.

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Report No. : T14-031  
Date : November 17, 2014  
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## TESTED FOR

### **INTERNATIONAL WINDOW CORP.**

1551 E. Orangethorpe Ave.  
Fullerton, CA 92831

#### **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 NAFS – North American Fenestration Standard/specification for windows, doors, and skylights  
AAMA/WDMA/CSA 101/IS.2/A440-11

**Class LC PG25** Size Tested: 3137 X 2438 mm (186 X 96 inches) Type: SD

2.2 CAWM 300 - 96 Forced Entry Resistance Tests for Sliding Glass Doors

2.3 ASTM F882 - Forced Entry Resistance Tests for Sliding Glass Doors

#### **3.0 SUMMARY**

The test results in paragraphs 5.0 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

**CONFIGURATION:** OXO

**FRAME SIZE:** 4724.4 mm x 2438.4 mm (186.00" x 96.00")

**FIXED PANELS:** 1555.8 mm x 2386.1 mm (61.25" x 93.94") Left 'O' Panel  
1530 mm x 2386.1 mm (60.25" x 93.94") Right 'O' Panel

**ACTIVE PANEL:** 1628.9 mm x 2386.1 mm (64.13" x 93.94")

**GLASS:** Each panel was glazed with a 1" overall insulated glass unit containing 3/16" 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:** All three 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 4", 34", and 81" from each end for a total of six.
- 2) The screen track and the fixed channel outside leg contained a pair of 1.06" x 0.18" weeps 6.5", 27.5", 39", 51", 63", 74", and 86.5" from each end for a total of 14 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 metal housing at each end. Each roller fit into its respective 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 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 mullion with four #8 x 1.25" 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, which was on the left fixed panel, was secured to the frame with an "L" shaped support block. The shorter leg of each block fit into the interlock stile hollow at each end. At the top end, this leg was fastened to the panel with the adjacent corner screw. 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 fixed panel on the right fit into the jamb and mullion channels. The fixed mullion was fabricated to conform to the head and threshold extrusions and fit snugly into these at each end. An 'L' clip was fastened at each end to the mullion on the fixed channel side with a pair of #10 x 1" PPH screws and to the frame at each end with a pair of #10 x 2" screws.

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

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 left fixed panel jamb stile, top rail and bottom rail were sealed to the frame from the interior.
3. The mullion to the threshold full profile.
4. The right fixed panel full perimeter on the inside to the frame and mullion.
5. All screw heads anchoring the threshold to the rough opening and clips to the threshold.

**ANCHORING:**

The frame was fastened to a 2" x 8" wooden rough opening with #8 x 1.5" screws every 12" through the nail-on fins at head and jambs.

The threshold was fastened with nine #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**  
**PARAGRAPH**

<u>PARAGRAPH</u>	<u>TEST DESCRIPTION</u>	<u>MEASURED</u>	<u>ALLOWED</u>
9.3.1	Operating Force (ASTM E 2068)		
	Breakaway Force	47.5 N (10.67 lbf)	135 N (30.35 lbf)
	Operating Force	25.9 N (5.83 lbf.)	90 N (20.23 lbf)
	Latching Device force	17.8 N (4.0 lbf)	100 N (22.48 lbf)
9.3.2	Air Infiltration (ASTM E 283)		
	75 Pa	1.5 L/s•m <sup>2</sup>	1.5 L/s•m <sup>2</sup>
	(1.6 PSF)	0.3 CFM/ft <sup>2</sup>	0.3 CFM/ft <sup>2</sup>
	The tested specimen meets the performance requirements specified in AAMA/WDMA/CSA 101 / I.S.2 / A440 for air leakage resistance.		
9.3.3	Water Penetration (ASTM E 547)		
	180 Pa (3.76 PSF)	No Leakage	No Leakage
	With and without screen		
9.3.4.2	Uniform Load Deflection (ASTM E 330)		
	1200 Pa (25.06 PSF) POS	24.50 mm (0.96")	Report Only
	1200 Pa (25.06 PSF) NEG	23.50 mm (0.92")	Report Only
9.3.4.3	Uniform Load Structural (ASTM E 330)		
	1800 Pa (37.59 PSF) POS	2.03 mm (0.08")	9.65 mm ( 0.38")
	1800 Pa (37.59 PSF) NEG	2.09 mm (0.09")	9.65 mm ( 0.38")
9.3.5	Forced Entry Resistance (ASTM F842 Type B and CAWM 300 Type II)		
	Passed -	No Entry	No Entry
9.3.6.3	Deglazing (ASTM E987)		
	320 N (71.94 lbf) Stiles	5%	Less than 90%
	230 N (51.71 lbf) Rails	3%	Less than 90%

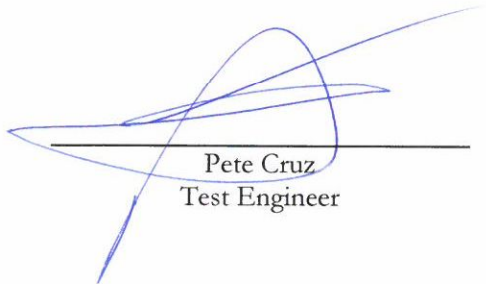
For a complete description of the tested sample refer to the attached seventeen (17) pages consisting of the bill of materials, cross section drawings, and individual die drawings.

Cross section drawings 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.

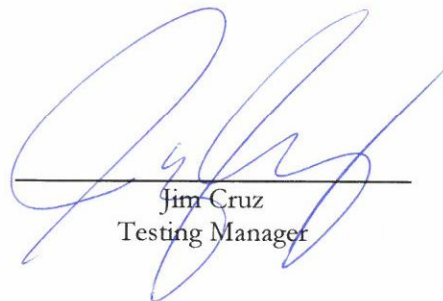
The preceding test results relate only to the tested specimen and were obtained by using the applicable ASTM and CAWM test methods. This report does not constitute certification of this product. Certification can only be granted by an approved administrator and/or validator.

Testing Completed: August 5, 2014  
Report Completed: November 17, 2014



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Pete Cruz  
Test Engineer



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Jim Cruz  
Testing Manager