

Fenestration Testing Laboratory, Inc.

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

Report No. : T12-054
Date : October 29, 2012
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TESTED FOR **INTERNATIONAL WINDOW CORP.**

A/P Dept
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 Side Hinged 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 **SHD – CW50** 1067 x 2438 (42 x 96)

2.2 AAMA 1304-02 Forced Entry Resistance of Side Hinged Door Systems

3.0 SUMMARY

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

4.0 SAMPLE SUBMITTED

SERIES: **7000 Terrace Door**

CONFIGURATION: **Single Out-swing**

FRAME SIZE: 1067 mm x 2438 mm (42.00" x 96.00")

PANEL SIZE: 1032 mm x 2435 mm (40.63" x 95.88")

GLASS: The door panel was glazed with 0.98" overall insulated glass containing 0.19" tempered glass on both sides.

INSULATED

GLASS SPACER: The spacer consisted of an A1-D aluminum air spacer.

GLAZING:

The IG unit was drop glazed from the outside with double sided adhesive tape measuring 0.50" x 0.13" full perimeter.

On the outside an aluminum snap-in stop was applied full perimeter.

The glazing stop was sealed to the glass with a wedge glazing gasket full perimeter.

The IG unit was set on 2" x 1" x 1/4" rubber setting blocks at the bottom corner and diagonally at the top corner 3" from the lock stile and 3" from the hinge stile top rail corner.

WEEPAGE:

The exterior face of the threshold contained a 1.74" x 0.22" slotted weep with gated cover located in the center.

The top portion of the sill contained a 0.50" x 0.25" slotted weep at each end draining down into the hollow. The panel bottom rail contained a 0.84" x 0.15" slotted weep at each end of the exterior face.

WEATHERING:

The frame contained a frame gasket full perimeter facing out.

The panel contained a vent gasket full perimeter facing in.

HARDWARE:

The panel was supported in the frame with three five knuckle butt hinges. Each hinge was fastened to the jamb with four #8 x 1" slotted machine screws and the respective leaf was fastened to hinge stile with four #10 x 1" PFH screws.

The panel contained a four point multi lock, latch lock and handle set. The door lock handle set was located 36" from the bottom of the door panel. The three point latch lock was fastened with two #6 x 3/4" PFH screws. The lock engaged its respective metal keeper fastened to the lock jamb with three #6 x 3/4" PFH screw.

The lock set was fastened to each other with three #10 x 2-3/8" PFH screws applied from the interior side.

CONSTRUCTION:

The panel corners were mitered and corner keyed.

The panel and frame were thermally broken with 9/16" wide polyamide thermal break.

The frame contained a nail fin extrusion snapped-in place to the frame full perimeter

CAULKING:

Sealant was applied inside the hollow of the mitered frame corners and joints.

ANCHORING:

The window was mounted into a 2" x 6" wooden rough opening with #8 x 3" PFH screws through the interior jamb and head 12' on center.

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>TEST DESCRIPTION</u>	<u>MEASURED</u>	<u>ALLOWED</u>
5.3.1.2.1 Force to Latch	55.6 N (8.0 lbf.)	Report only
5.3.1.2.2 Force to engage deadbolt	40.0 N (5.0 lbf)	Report only

**5.2 TEST RESULTS
PARAGRAPH**

(Continued)

TEST DESCRIPTION

MEASURED

ALLOWED

5.3.2.1 Air Infiltration (ASTM E 283) 75 Pa (1.6 PSF) The tested specimen exceeds the performance levels specified in AAMA/WDMA/CSA 101/IS.2/A440 for air leakage resistance.	0.05 L/s•m ² (0.2 CFM/Ft ²)	1.5 L/s•m ² (0.3 CFM/Ft ²)
5.3.3.2 Water Penetration (ASTM E 331) 180 Pa (3.75 PSF)	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	1.75 mm (0.07") 2.00 mm (0.08")	Report only Report only
5.3.4.3 Uniform Load Structural (ASTM E 330) 1800 Pa (37.5 PSF) POS 1800Pa (37.5 PSF) NEG	0.00 mm (0.00") 0.00 mm (0.00")	2.75 mm (0.11" Set) 2.75 mm (0.11" Set)

**5.3 ADDITIONAL PERFORMANCE GRADES
TEST RESULTS
PARAGRAPH**

TEST DESCRIPTION

MEASURED

ALLOWED

5.3.3.2 Water Penetration (ASTM E 547) 360 Pa (7.50 PSF)	No Leakage	No Leakage
5.3.4.2 Uniform Load Deflection (ASTM E 330) 2400 Pa (50.0 PSF) POS 2400 Pa (50.0 PSF) NEG	3.50 mm (0.14") 4.00 mm (0.16")	Report Only Report Only
5.3.4.3 Uniform Load Structural (ASTM E 330) 3600 Pa (75.0 PSF) POS 3600 Pa (75.0 PSF) NEG	0.00 mm (0.00") 0.00 mm (0.00")	2.75 mm (0.11" Set) 2.75 mm (0.11" Set)

6.0	5.3.5	AAMA 1304-02 Forced Entry Resistance of Side Hinged Door Systems			
		<u>TEST</u>	<u>RESULTS</u>	<u>ALLOWED</u>	
		4.4	300# top of stile	Pass	No entry/No access
		4.4	300# bottom of stile	Pass	No entry/No access
		4.4	300# 3" above lock	Pass	No entry/No access

For a complete description of the tested sample refer to the attached twelve (12) pages consisting of the bill of materials, cross section drawings, and individual part 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 AAMA 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: October 30, 2012
Report Completed: November 6, 2012

Bennie Thompson

Bennie Thompson
Testing Manager