

# INTERNATIONAL WINDOW TEST REPORT

SCOPE OF WORK AAMA/WDMA/CSA 101/I.S.2/A440 TESTING ON 5021W OUTSWING DOOR (SIDE HINGED DOOR)

**REPORT NUMBER** M8899.01-301-44 R0

**TEST DATES** 11/16/21 - 11/18/21

**ISSUE DATE** 04/05/24

**RECORD RETENTION END DATE** 11/18/26

# PAGES

29

# DOCUMENT CONTROL NUMBER

ATI 00499 (07/24/17) RT-R-AMER-Test-2807 © 2017 INTERTEK





2524 E. Jensen Ave Fresno, California 93706

Telephone: 559-233-8705 Facsimile: 717-764-4129 www.intertek.com/building

# **TEST REPORT FOR INTERNATIONAL WINDOW**

Report No.: M8899.01-301-44 R0 Date: 04/05/24

#### **REPORT ISSUED TO**

INTERNATIONAL WINDOW 2455 Wardlow Road Corona, CA 92880

#### **SECTION 1**

# SCOPE

Intertek Building & Construction (B&C) was contracted by International Window to perform testing in accordance with AAMA/WDMA/CSA 101/I.S.2/A440 testing on 5021W Outswing Door (Side Hinged Door). Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at 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.

#### **SECTION 2**

#### SUMMARY OF TEST RESULTS

TITLE	RESULTS
AAMA/WDMA/CSA 101/I.S.2/A440	Class R – PG15, Size Tested: 975 x 2440 mm (38 x 96 in) - Type SHD
Design Pressure	±1440 Pa (±30.08 psf)
Air Infiltration	0.2 L/s/m <sup>2</sup> (0.04 cfm/ft <sup>2</sup> )
Canadian Air Infiltration/Exfiltration Level	A2
Water Penetration Resistance Test Pressure	140 Pa (2.92 psf)
Operation Cycle Performance*	25,000 cycles

\*Reference to be made to Intertek B&C test report no. D3397.01-301-44 R2, dated 10/07/16.

#### For INTERTEK B&C:

<b>COMPLETED BY:</b>	Ricardo Cortez	<b>REVIEWED BY:</b>	Tyler Westerling, P.E.
TITLE:	Technician	TITLE:	Operations Manager
SIGNATURE:		SIGNATURE:	
DATE:	04/05/24	DATE:	04/05/24
RC:ms			

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample(s) tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.



# TEST REPORT FOR INTERNATIONAL WINDOW

Report No.: M8899.01-301-44 R0 Date: 04/05/24

#### **SECTION 3**

#### TEST METHOD(S)

The specimens were evaluated in accordance with the following:

AAMA/WDMA/CSA 101/I.S.2/A440-2017- North American Fenestration Standard/Specification for Windows, Doors, and Skylights

**ANSI/BHMA A156.2-2011**, American National Standard for Bored & Preassembled Locks and Latches

**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

AAMA 1304-02, Voluntary Specification for Forced Entry Resistance of Side-Hinged Door Systems

AAMA 925-13, Specification for Determining the Vertical Loading Resistance of Side-Hinged Doors

#### **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 two years from the test completion date.

The specimen was installed into a Douglas-Fir wood buck. The exterior perimeter of the door was sealed with silicone sealant.

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

#### **SECTION 5**

#### LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Meng Vang	Intertek B&C



# **TEST REPORT FOR INTERNATIONAL WINDOW**

Report No.: M8899.01-301-44 R0 Date: 04/05/24

#### **SECTION 6**

#### **TEST SPECIMEN DESCRIPTION**

**Product Type:** Side-Hinged Door (Out-Swing) **Series/Model:** 5021W Outswing Door

#### Product Sizes:

OVERALL AREA:	WIDTH		HEIGHT	
2.38 m <sup>2</sup> (25.6 ft <sup>2</sup> )	Millimeters	Inches	Millimeters	Inches
Overall Size	975	38-3/8	2440	96-1/16
Leaf	895	35-1/4	1360	53-9/16

#### Frame Construction:

FRAME MEMBER	MATERIAL	DESCRIPTION
Head, Jambs, Sill	Rigid PVC	Extruded, internal aluminum reinforcement
	JOINERY TYPE	DETAIL

# Leaf Construction: FRAME MEMBER MATERIAL DESCRIPTION Rails, Stiles Rigid PVC Extruded, internal aluminum reinforcement JOINERY TYPE DETAIL All corners Butted Screwed into corner blocks and Sealed

#### **Reinforcement:**

DRAWING NUMBER	LOCATION	MATERIALS
50442	Frame head, jambs, sill	6063-T5 Aluminum
H50443	Leaf top rail	6063-T5 Aluminum
H50444	Leaf bottom rail	6063-T5 Aluminum
H50445	Leaf hinge stile	6063-T5 Aluminum
H50446	Leaf lock stile	6063-T5 Aluminum

Weatherstripping:				
DESCRIPTION	QUANTITY	LOCATION		
Vinyl bulb/leaf gasket	1 row	Frame head, jambs		
Compression bulb	1 row	Frame sill		



# **TEST REPORT FOR INTERNATIONAL WINDOW**

Report No.: M8899.01-301-44 R0 Date: 04/05/24

**Glazing:** No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen can be made.

LOCATION	Leaf	
LAYER 1	1/8" Tempe	ered
GAP 1	0.50"	A1-D: Aluminum Spacer
LAYER 2	1/8" Tempe	ered
DAYLIGHT C	PENING	655 x 2070 mm (25-13/16" x 81-1/2")

Drainage:

DRAINAGE METHOD	SIZE	QUANTITY	LOCATION
Weep with cover	1 3/4" w by 1/4" t	4	Two per sill end

#### Hardware:

DESCRIPTION	QUANTITY	LOCATION
Deadbolt	1	Leaf lock stile – midspan
Door handle + keeper	1	Directly under deadbolt
Hinges	4	Leaf hinge stile, 24" on center



# **TEST REPORT FOR INTERNATIONAL WINDOW**

Report No.: M8899.01-301-44 R0 Date: 04/05/24

# **SECTION 7**

#### TEST RESULTS

The temperature during testing was 22°C (71.5°F). The results are tabulated as follows:

TITLE OF TEST	RESULTS	ALLOWED	NOTE
Force to Latch Side-Hinged	Force to Latch:		
Door System,	37 N (8.5 lbf)	Report only	
per ANSI/BHMA A156.2	Deadbolt:		
· · · · ·	18 N (4 lbf)	Report only	
Air Leakage,	001112		
Infiltration per ASTM E283	$0.2 \text{ L/s/m}^2$	1.5 L/s/m <sup>2</sup>	
at 75 Pa (1.57 pst)	(0.04 cfm/ft <sup>2</sup> )	(0.3 cfm/ft <sup>2</sup> ) max.	1
Air Leakage,			
Exfiltration per ASTM E283	$0.2 \text{ L/s/m}^2$	1.5 L/s/m <sup>2</sup>	
at 75 Pa (1.57 pst)	(0.04 cfm/ft <sup>2</sup> )	$(0.3 \text{ cfm/ft}^2) \text{ max}.$	1
Canadian Air		$1.51/s/m^2$	
Infiltration/Exfiltration Level	A2	$(0.3 \text{ cfm/ft}^2) \text{ max.}$	
Water Penetration,			
per ASTM E547			
at 140 Pa (2.92 psf)	Pass	No leakage	
Uniform Load Deflection,			
per ASTM E330			
Deflections taken			
Above Deadbolt			
+1440 Pa (+30.08 psf)	0.1 mm (0.01")	Report only	
-1440 Pa (-30.08 psf)	0.3 mm (0.01")		2,3,4,5
Uniform Load Structural,			
per ASTM E330			
Permanent set taken			
Above Deadbolt		<u>Maximum</u>	
+2160 Pa (+45.11 psf)	0.1 mm (0.01")	5.2 mm (0.20")	
-2160 Pa (-45.11 psf)	0.1 mm (0.01")	5.2 mm (0.20")	4,5
Forced Entry Resistance,			
per AAMA 1304,			
1330 N (300 lbf) point load	Pass	No entry	6,7
Vertical Loading Resistance,			
per AAMA 925	Pass 667 N (150 lbf)	Report only	6,7
Operation Cycle Performance,			
per AAMA 920			
25,000 Cycles	Pass	Meets as stated	8

Notes on next page...



# **TEST REPORT FOR INTERNATIONAL WINDOW**

Report No.: M8899.01-301-44 R0 Date: 04/05/24

**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:* The client opted to start at a pressure higher than the minimum required.

**Note 3:** 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 4: Loads were held for 10 seconds.

**Note 5:** At the conclusion of the test, there were no signs of damage to the door panel, frame, construction, fasteners, glazing, weatherstripping, or system assembly.

**Note 6:** After completing the test loads, the door leaf and deadbolt operated normally.

**Note 7:** No loosening or damage to fasteners and no damage to the glazing system or glass were observed at the completion of testing.

*Note 8:* Reference to be made to Intertek B&C test report no. *D3397.01-301-44 R2, dated 10/07/16.* 

# SECTION 8

# ALTERATIONS

No alterations were required.



# TEST REPORT FOR INTERNATIONAL WINDOW

Report No.: M8899.01-301-44 R0 Date: 04/05/24

#### **SECTION 9**

#### 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.



# SECTION 10

# CONCLUSION

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

Class R – PG15, Size Tested: 975 x 2440 mm (38 x 96 in) - Type SHD



# **TEST REPORT FOR INTERNATIONAL WINDOW**

Report No.: M8899.01-301-44 R0 Date: 04/05/24

#### **SECTION 11**

#### DRAWING(S)

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.



# **TEST REPORT FOR INTERNATIONAL WINDOW**

Report No.: M8899.01-301-44 R0 Date: 04/05/24

# **SECTION 12**

**REVISION LOG** 

<b>REVISION #</b>	DATE	PAGES	REVISION
0	04/05/24	N/A	Original Report Issue