

CLIENT: Viewmax Windows & Doors Co. Ltd.
297 HuaXin Road QiaoRun Development Zone
Yanggu, Liaocheng, Shandong
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China

Test Report No: T1342-3d

Issue Date: October 15, 2019

SAMPLE ID: Viewmax Windows & Doors Co. Ltd. E3 Series Outswing Double Side-hinged Door.

SAMPLE DESCRIPTION: Width: 2019 mm; Height: 2781 mm. See pages 5-8 for full description.

SAMPLING DETAIL: Test sample from Viewmax Windows & Doors Co. Ltd. was submitted directly to QAI.

DATE OF RECEIPT: Test sample was received on September 9, 2019

TESTING PERIOD: Testing was conducted September 30, 2019 through October 15, 2019.

TESTING LOCATION: QAI Laboratories Ltd., Burnaby, BC, Canada.

AUTHORIZATION: Proposal #19SO05072-, signed by Nenad Lihtar, dated May 11, 2018.

TEST PROCEDURE: Testing was performed following the methods and requirements outlined in the following standards:
AAMA/WDMA/CSA 101/I.S.2/A440-17 NAFS – North American Fenestration Standard/Specification for windows, doors, and skylights.
CSA A440S1-19 – Canadian Supplement to NAFS.

TEST RESULTS: **E3 Series O/S Double Side-hinged Door:**
Class R – PG20: Size tested 79.5 x 109.5 in – Type SHD
Class R – PG960 (SI): Size tested 2019 x 2781 mm – Type SHD
Detailed test results and product ratings are available on pages 3-4.

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Prepared By



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Signed for and on behalf of
QAI Laboratories, Ltd



Neil Dumont
Fenestration Reviewer

TEST CONDITIONS:

AAMA/WDMA/CSA 101/I.S.2/A440-17 NAFS and CSA A440S1-19

QAI Laboratories Ltd. (QAI) was retained by Viewmax Windows & Doors Co. Ltd. to perform testing in accordance with the mandatory test requirements of AAMA/WDMA/CSA 101/I.S.2/A440-17 NAFS and CSA A440S1-19 on a representative sample of a 2019 mm x 2781 mm E3 Series Outswing Double Side-hinged Door.

This report includes tests performed on a specimen of specific dimensions. Actual product performance may be affected by variations in the windows dimensions, assembly details and installation method. The drawings supplied by Viewmax Windows & Doors Co. Ltd. were verified by QAI for the window unit tested and are shown in Appendix A.

Installed by: Viewmax Windows & Doors Co. Ltd.

Installation details:

- Bead of structural sealant between test specimen and wooden test buck.
- Test specimen fastened around to wooden test buck using #18 x 3-1/4" pan-head screws spaced approximately every 20".

Wooden test buck details:

- Inner frame: nominal 2" x 6" stud framing.
- Outer frame: nominal 2" x 12" stud framing.
- Rough opening: 3/16" larger in height and 1/4" larger in width.
- Shims: Twenty 7/16" x 1-1/2" x 3-3/8" rigid PVC shims in total installed around test specimen. Four shims at head, four shims at sill and five at each jamb.

PRODUCT RATINGS:

Table 1: Summary of test results

Test Name	AAMA/WDMA/CSA 101/I.S.2/A440-17 NAFS and CSA A440S1-19 Results:
Air Leakage Resistance Test (ASTM E283)	Pressure differential = 75 Pa Infiltration result = 0.374 L/s/m ² (0.074 cfm/ft ²) Exfiltration result = 0.415 L/s/m ² (0.082 cfm/ft ²) Overall result = A3 Level
Water Penetration Resistance Test (ASTM E547)	Maximum pressure differential = 290 Pa (DP 40 – 6.00 psf)
Uniform Load Deflection Test (ASTM E330 – Procedure A)	Design pressure = 1440 Pa (DP 30) Maximum pressure differential = 1440 Pa (30.1 psf) Maximum deflection at design pressure = 18.6 mm (0.731") - Measurement taken along locking stile of primary slab
Uniform Load Structural Test (ASTM E330 – Procedure A)	Design pressure = 960 Pa (DP 20) Maximum pressure differential = 1440 Pa (30.1 psf)
Forced Entry Resistance Test (AAMA 1304)	Pass
Thermoplastic Corner Weld Test (ASTM D618)	Pass

Maximum Size Tested: 2019 mm wide x 2781 mm tall (79.5" x 109.5")
Performance Classification: R
Performance Grade: PG 20

Primary Designator:
 Class R – PG20: Size tested 79.5 x 109.5 in – Type SHD (Side-hinged Door)
 Class R – PG960 (SI): Size tested 2019 x 2781 mm – Type SHD (Side-hinged Door)

Secondary Designator:
 Positive Design Pressure (DP) = 960 Pa (20.05 psf)
 Negative Design Pressure (DP) = -960 Pa (-20.05 psf)
 Water Penetration Resistance Test Pressure = 290 Pa (6.00 psf)
 Canadian Air Infiltration / Exfiltration = A3 Level

Force to Latch (Clause 6.4.5.1) – Not applicable (Multi-point lock)
 Force to Engage for Deadbolt (Clause 6.4.5.2) – Not applicable (Multi-point lock)

Notes:

- AAMA/WDMA/CSA 101/I.S.2/A440-17 NAFS, Clause 9.2.5: The air, water, and structural tests required by this Standard/Specification are performed on test specimens installed in a fixture that permits installation in accordance with the manufacturer's documented instructions. These tests are used to evaluate the performance of the fenestration product only and are not intended to test the performance of the installation, particularly the perimeter sealants between the fixture and the test specimen and the anchoring of the test assembly to the test fixture.
- Products not installed according to the installation method described in this report may not perform to an equivalent performance level.