

CLIENT: Viewmax Windows and Doors Ltd.
Unit 200-12500 Vickers Way
Richmond, British Columbia
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Canada

Test Report No: T1342-4c

Issue Date: November 21, 2019

SAMPLE ID: Viewmax Windows and Doors Ltd. E3 Series Outswing Side Hinged Door.

SAMPLING DETAIL: Test sample information was submitted directly to QAI for evaluation.

DATE OF RECEIPT: Documentation was received on October 28, 2019 from Viewmax Windows and Doors Ltd.

TESTING PERIOD: Evaluation was conducted November 13, 2019 through November 21, 2019.

AUTHORIZATION: Proposal 19SO05101 signed by Nenad Lihtar on May 13, 2019.

TEST PROCEDURE: Thermal simulation evaluation was performed following the methods outlined in the following standard:

CSA A440.2-19 Fenestration Energy Performance.

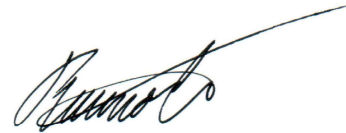
TEST RESULTS: Based on evaluation conducted by QAI, energy performance values for Viewmax Windows and Doors Ltd. E3 Series Outswing Side Hinged Door product are as found in Test Results section of this report for glazing options evaluated.

Prepared By

Reviewed By



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Fenestration Reviewer

Signed for and on behalf of QAI Laboratories, Ltd.

TEST METHODS:

CSA A440.2-19

QAI Laboratories Ltd. (QAI) has performed energy performance thermal modeling in accordance with CSA A440.2-19. This thermal modeling was performed using software THERM 7.4 and WINDOW 7.4, with inputs outlined below for the noted E3 Series Outswing Side Hinged Door product evaluated.

Table 1. Viewmax Windows and Doors Ltd. E3 Series Outswing Side Hinged Door product evaluated to CSA A440.2-19.

PRODUCT	WIDTH (mm)	HEIGHT (mm)
E3 Series Outswing Side Hinged Door	960	2090

Viewmax Windows and Doors Ltd. E3 Series Outswing Side Hinged Door noted above was not evaluated for Air Leakage; therefore no Energy Rating (ER) calculation was performed.

For the above noted products, the U-value, Solar Heat Gain Coefficient (SHGC) and Visual Transmittance (VT) were determined for the glazing options outlined in the Test Results section below, in accordance with CSA A440.2-19 with the software noted.

All drawings used in the modeling of the above noted fenestration products can be found in Appendix A to this report.

TEST RESULTS SUMMARY:

**E3 Series Outswing Side Hinged Door
Size: 960 mm x 2090 mm**

Model Code	Number of Layers	Exterior Layer (mm)	Middle Layer (mm)	Interior Layer (mm)	Emissivity Surface 1	Emissivity Surface 2	Emissivity Surface 3	Emissivity Surface 4	Emissivity Surface 5	Emissivity Surface 6	Cavity 1 and 2 (mm)	Spacer Bar Type	Grille Bar	Visual Transmittance Total Product	Product U-Value (W/m ² K)	Product SHGC	Energy Rating (ER)
VMW-E3-OSHD-5,55T(2)-16AR95SW-5,CL	2	5 CSG Double Silver LowE (CEV11-55T)	-	5 Clear	-	0.050	-	-	-	-	16.0 95% Argon	SW	-	0.28	1.50	0.17	N/A
VMW-E3-OSHD-5,55T(2)-5,55T(4)-5CL-12AR95SW	3	5 CSG Double Silver LowE (CEV11-55T)	5 CSG Double Silver LowE (CEV11-55T)	5 Clear	-	0.050	-	0.050	-	-	12.0 95% Argon	SW	-	0.15	1.07	0.12	N/A

# of Glass Layers	E3 Series Outswing Side Hinged Door – Frame Representative Values (used for SHGC and VT calculations)							
	Model Code:	U-factor Center-of-glass (1000 mm x 1000 mm IGU)	U-factor Total Product	Dividers	SHGC ₀	SHGC ₁	VT ₀	VT ₁
3	VMW-E3-OSHD-5,55T(2)-5,55T(4)-5CL-12AR95SW	0.729230	1.067222	NONE	0.007110	0.594122	0.000000	0.587012
				<1"	0.009885	0.511695	0.000000	0.501810
				≥1"	0.012448	0.435567	0.000000	0.423118

See notes on the following page.

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