

PRODUCT APPROVAL EVALUATION REPORT

PER 553.842 F.S. AND RULE CHAPTER 61G20-3

DATE: April 16, 2026

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COMPLIANCE METHOD: 61G20-3.005 (1)(d)
Evaluation Report from a Licensed Professional Engineer

PRODUCT DESCRIPTION: APPLICATION FL # 47332.2

Manufacturer	E.S. Windows, Inc.
Address	3550 NW 49th St, Miami, FL 33142
Product Name	SERIES ES-WA9040 ALUMINUM WINDOW WALL
Window Width	Maximum Width: 86 in.
Window Height	Maximum Height: 243 7/8 in.
Design Pressure	+ 200 PSF / - 200 PSF
Impact Rating	Small Missile Impact (SMI)
Installation Drawing	DT-PA-ESW-005
Use in HVHZ	This product complies with the testing requirements of the High Velocity Hurricane Zones.
Comparative Analysis	Comparative analysis in compliance with Section 2411.3.2.4, FBC 2023 has been included based of tested sizes, design and cycling pressures.

TESTS PERFORMED: Mandatory in compliance with AAMA 501 Per FBC 2023 section 1709.8.4 and 2411.3.2.1.1, AAMA 101/I.S.2/NAFS/TAS-202, TAS-201 and TAS 203, supplemental tests in compliance with TAS 202 and ANSI Z97.1 Impact Test.

Test Report	Test Lab.	Report Date	Test Standard	Description	Lab. Engineer
BT-ESW-24-043	Blackwater Technical services Inc.	02/07/2025	ASTM E283	Air Infiltration	Mike Caldwell, PE
BT-ESW-24-043	Blackwater Technical services Inc.	02/07/2025	ASTM E331	Water Infiltration	Mike Caldwell, PE
BT-ESW-24-043	Blackwater Technical services Inc.	02/07/2025	TAS 202	Uniform Structural Load Tests (Positive and Negative).	Mike Caldwell, PE
BT-ESW-24-043	Blackwater Technical services Inc.	02/07/2025	TAS 201 /ASTM E1996	Small Missile Impact Test	Mike Caldwell, PE
BT-ESW-24-043	Blackwater Technical services Inc.	02/07/2025	TAS 203 /ASTM 1886	Cyclic Pressure Test (Positive and Negative).	Mike Caldwell, PE
BT-ESW-24-043	Blackwater Technical services Inc.	02/07/2025	ANSI Z97.1	Impact Test for Safety Glass	Mike Caldwell, PE
BT-ESW-24-043	Blackwater Testing Inc.	12/27/2023	ASTM F588	Forced Entry	Mike Caldwell, PE

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Test Report	Test Lab.	Report Date	Test Standard	Description	Lab. Engineer
BT-ESW-24-044	Blackwater Technical services Inc.	03/21/2025	ASTM E283	Air Infiltration	Mike Caldwell, PE
BT-ESW-24-044	Blackwater Technical services Inc.	03/21/2025	ASTM E331	Water Infiltration	Mike Caldwell, PE
BT-ESW-24-044	Blackwater Technical services Inc.	03/21/2025	TAS 202	Uniform Structural Load Tests (Positive and Negative).	Mike Caldwell, PE
BT-ESW-24-044	Blackwater Technical services Inc.	03/21/2025	TAS 201 /ASTM E1996	Small Missile Impact Test	Mike Caldwell, PE
BT-ESW-24-044	Blackwater Technical services Inc.	03/21/2025	TAS 203 /ASTM 1886	Cyclic Pressure Test (Positive and Negative).	Mike Caldwell, PE
BT-ESW-24-044	Blackwater Technical services Inc.	03/21/2025	ANSI Z97.1	Impact Test for Safety Glass	Mike Caldwell, PE
BT-ESW-24-044	Blackwater Testing Inc.	03/21/2025	ASTM F588	Forced Entry	Mike Caldwell, PE
MED-2304a W&D	QAI Laboratories	04/16/2025	ASTM E283	Air Infiltration	José Sánchez
MED-2304a W&D	QAI Laboratories	04/16/2025	ASTM E331	Water Infiltration	José Sánchez
MED-2304a W&D	QAI Laboratories	04/16/2025	TAS 202	Uniform Structural Load Tests (Positive and Negative).	José Sánchez
MED-2304a W&D	QAI Laboratories	04/16/2025	TAS 201 /ASTM E1996	Small Missile Impact Test	José Sánchez
MED-2304a W&D	QAI Laboratories	04/16/2025	TAS 203 /ASTM 1886	Cyclic Pressure Test (Positive and Negative).	José Sánchez
MED-2304a W&D	QAI Laboratories	04/16/2025	ANSI Z97.1	Impact Test for Safety Glass	José Sánchez
TR-IFET-25-0010.5A	IFET, Inc.	03/31/2025	ASTM E283	Air Infiltration	Arshad Viqar, PE
TR-IFET-25-0010.5A	IFET, Inc.	03/31/2025	ASTM E283	Water Infiltration	Arshad Viqar, PE
TR-IFET-25-0010.5A	IFET, Inc.	03/31/2025	TAS 202	Uniform Structural Load Tests (Positive and Negative).	Arshad Viqar, PE
TR-IFET-25-0010.5A	IFET, Inc.	03/31/2025	TAS 201 /ASTM E1996	Large Missile Impact Test	Arshad Viqar, PE
TR-IFET-25-0010.5A	IFET, Inc.	03/31/2025	TAS 203 /ASTM 1886	Cyclic Pressure Test (Positive and Negative).	Arshad Viqar, PE
TR-IFET-25-0010.5A	IFET, Inc.	03/31/2025	ANSI Z97.1	Impact Test for Safety Glass	Arshad Viqar, PE

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75599-25-TAS	Construction Research Laboratory	04/24/2025	ASTM E283	Air Infiltration	George Dotzler
75599-25-TAS	Construction Research Laboratory	04/24/2025	ASTM E331	Water Infiltration	George Dotzler
75599-25-TAS	Construction Research Laboratory	04/24/2025	TAS 202	Uniform Structural Load Tests (Positive and Negative).	George Dotzler
75599-25-TAS	Construction Research Laboratory	04/24/2025	TAS 201 /ASTM E1996	Small Missile Impact Test	George Dotzler
75599-25-TAS	Construction Research Laboratory	04/24/2025	TAS 203 /ASTM 1886	Cyclic Pressure Test (Positive and Negative).	George Dotzler
75599-25-TAS	Construction Research Laboratory	04/24/2025	ANSI Z97.1	Impact Test for Safety Glass	George Dotzler
TR-IFET-25-0043	IFET, Inc.	08/12/2025	ANSI Z97.1	Impact Test for Safety Glass	Arshad Viqar, PE
TR-IFET-25-0043	IFET, Inc.	08/12/2025	FBC-1607.8	Concentrated Load	Arshad Viqar, PE
TR-IFET-25-0043	IFET, Inc.	08/12/2025	ASTM E283	Air Infiltration	Arshad Viqar, PE
TR-IFET-25-0043	IFET, Inc.	08/12/2025	TAS 202	Uniform Structural Load Tests (Positive and Negative).	Arshad Viqar, PE
TR-IFET-25-0043	IFET, Inc.	08/12/2025	ASTM E331	Water Infiltration	Arshad Viqar, PE
TR-IFET-25-0043	IFET, Inc.	08/12/2025	TAS 201 /ASTM E1996	Small Missile Impact Test	Arshad Viqar, PE
TR-IFET-25-0043	IFET, Inc.	08/12/2025	TAS 203 /ASTM 1886	Cyclic Pressure Test (Positive and Negative).	Arshad Viqar, PE
TR-IFET-25-0043	IFET, Inc.	08/12/2025	ANSI Z97.1	Impact Test for Safety Glass	Arshad Viqar, PE
TR-IFET-25-0043	IFET, Inc.	08/12/2025	FBC-1607.8	Concentrated Load	Arshad Viqar, PE
TR-IFET-25-0043	IFET, Inc.	08/12/2025	ASTM E283	Air Infiltration	Arshad Viqar, PE
TR-IFET-25-0043	IFET, Inc.	08/12/2025	TAS 202	Uniform Structural Load Tests (Positive and Negative).	Arshad Viqar, PE
TR-IFET-25-0043	IFET, Inc.	08/12/2025	ASTM E331	Water Infiltration	Arshad Viqar, PE
TR-IFET-25-0043	IFET, Inc.	08/12/2025	TAS 201 /ASTM E1996	Small Missile Impact Test	Arshad Viqar, PE
TR-IFET-25-0043	IFET, Inc.	08/12/2025	TAS 203 /ASTM 1886	Cyclic Pressure Test (Positive and Negative).	Arshad Viqar, PE

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BT-ESW-25-005B	Blackwater Technical services Inc.	01/20/2026	ASTM E283	Air Infiltration	Mike Caldwell, PE
BT-ESW-25-005B	Blackwater Technical services Inc.	01/20/2026	ASTM E331	Water Infiltration	Mike Caldwell, PE
BT-ESW-25-005B	Blackwater Technical services Inc.	01/20/2026	TAS 202	Uniform Structural Load Tests (Positive and Negative).	Mike Caldwell, PE
BT-ESW-25-005B	Blackwater Technical services Inc.	01/20/2026	TAS 201 /ASTM E1996	Small Missile Impact Test	Mike Caldwell, PE
BT-ESW-25-005B	Blackwater Technical services Inc.	01/20/2026	TAS 203 /ASTM 1886	Cyclic Pressure Test (Positive and Negative).	Mike Caldwell, PE
BT-ESW-25-005B	Blackwater Technical services Inc.	01/20/2026	ANSI Z97.1	Impact Test for Safety Glass	Mike Caldwell, PE
BT-ESW-25-005B	Blackwater Testing Inc.	01/20/2026	ASTM F588	Forced Entry	Mike Caldwell, PE
7604-25	Construction Research Laboratory	01/20/2026	ASTM E283	Air Infiltration	George Dotzler
7604-25	Construction Research Laboratory	01/20/2026	ASTM E331-00	Water Infiltration	George Dotzler
7604-25	Construction Research Laboratory	01/20/2026	TAS 202	Uniform Structural Load Tests (Positive and Negative).	George Dotzler
7604-25	Construction Research Laboratory	01/20/2026	TAS 201 /ASTM E1996	Small Missile Impact Test	George Dotzler
7604-25	Construction Research Laboratory	01/20/2026	TAS 203 /ASTM 1886	Cyclic Pressure Test (Positive and Negative).	George Dotzler
7604-25	Construction Research Laboratory	01/20/2026	ANSI Z97.1	Impact Test for Safety Glass	George Dotzler
7605-25-TAS	Construction Research Laboratory	03/15/2026	ASTM E283	Air Infiltration	George Dotzler
7605-25-TAS	Construction Research Laboratory	03/15/2026	ASTM E331-00	Water Infiltration	George Dotzler
7605-25-TAS	Construction Research Laboratory	03/15/2026	TAS 202	Uniform Structural Load Tests (Positive and Negative).	George Dotzler
7605-25-TAS	Construction Research Laboratory	03/15/2026	TAS 201 /ASTM E1996	Small Missile Impact Test	George Dotzler

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7605-25-TAS	Construction Research Laboratory	03/15/2026	TAS 203 /ASTM 1886	Cyclic Pressure Test (Positive and Negative).	George Dotzler
7605-25-TAS	Construction Research Laboratory	04/11/2026	ANSI Z97.1	Impact Test for Safety Glass	George Dotzler
BT-ESW-25-013	Blackwater Technical services Inc.	04/11/2026	ASTM E283	Air Infiltration	Mike Caldwell, PE
BT-ESW-25-013	Blackwater Technical services Inc.	04/11/2026	ASTM E331	Water Infiltration	Mike Caldwell, PE
BT-ESW-25-013	Blackwater Technical services Inc.	04/11/2026	TAS 202	Uniform Structural Load Tests (Positive and Negative).	Mike Caldwell, PE
BT-ESW-25-013	Blackwater Technical services Inc.	04/11/2026	TAS 201 /ASTM E1996	Small Missile Impact Test	Mike Caldwell, PE
BT-ESW-25-013	Blackwater Technical services Inc.	04/11/2026	TAS 203 /ASTM 1886	Cyclic Pressure Test (Positive and Negative).	Mike Caldwell, PE
BT-ESW-25-013	Blackwater Technical services Inc.	04/11/2026	ANSI Z97.1	Impact Test for Safety Glass	Mike Caldwell, PE
BT-ESW-25-013	Blackwater Testing Inc.	04/11/2026	ASTM F588	Forced Entry	Mike Caldwell, PE
BT-ESW-25-006	Blackwater Technical services Inc.	04/11/2026	ASTM E283	Air Infiltration	Mike Caldwell, PE
BT-ESW-25-006	Blackwater Technical services Inc.	04/11/2026	ASTM E331	Water Infiltration	Mike Caldwell, PE
BT-ESW-25-006	Blackwater Technical services Inc.	04/11/2026	TAS 202	Uniform Structural Load Tests (Positive and Negative).	Mike Caldwell, PE
BT-ESW-25-006	Blackwater Technical services Inc.	04/11/2026	TAS 201 /ASTM E1996	Small Missile Impact Test	Mike Caldwell, PE
BT-ESW-25-006	Blackwater Technical services Inc.	04/11/2026	TAS 203 /ASTM 1886	Cyclic Pressure Test (Positive and Negative).	Mike Caldwell, PE
BT-ESW-25-006	Blackwater Technical services Inc.	04/11/2026	ANSI Z97.1	Impact Test for Safety Glass	Mike Caldwell, PE
BT-ESW-25-006	Blackwater Testing Inc.	04/11/2026	ASTM F588	Forced Entry	Mike Caldwell, PE

