



BUILDING DROPS

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Certificate of Authorization: 29578

398 E. Dania Beach Blvd
Suite 338
Dania Beach, FL 33004
954.399.8478 PH
954.744.4738 FX
contact@buildingdrops.com

Product Evaluation Report

of

Seves Glass Block, Inc.

Residential Hurricane Resistant Windows with Thickset 90 Series Glass Block & ProVantage[®] Silicone System

for

Florida Product Approval

Report No. 4813

Current Florida Building Code

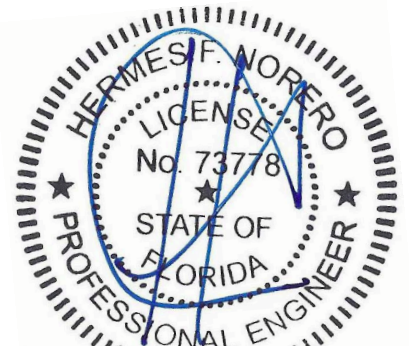
Method: 1 – A (Certification)
Category: Windows
Sub – Category: Fixed

Product: *Residential Hurricane Resistant Windows with Thickset 90 Series Glass Block & ProVantage[®] Silicone System*
Material: *Composite*
Product Dimensions: *36 sq. ft (Maximum)*

Prepared for:
Seves Glass Block, Inc.
10576 Broadview Road
Broadview Heights, OH 44147

Prepared by:
Hermes F. Norero, P.E.
Florida Professional Engineer # 73778
Date: 04/12/2018

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Hermes F. Norero, P.E.
Florida No. 73778



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Date: 04/12/2018

Report No: 4813

Manufacturer: Seves Glass Block, Inc.

Product Category: Windows

Product Sub-Category: Fixed

Compliance Method: State Product Approval Rule (1)(a)

Product Name: Residential Hurricane Resistant Windows with Thickset 90 Series Glass Block & ProVantage® Silicone System
36 sq. ft (Maximum)

Scope: This is a Product Evaluation Report issued by Hermes F. Norero, P.E. (FL # 73778) for **Seves Glass Block, Inc.** based on Method 1a of the State of Florida Product Approval, Department of Business and Professional Regulation - Florida Building Commission.

Hermes F. Norero, P.E. does not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named herein.

This product has been evaluated for use in locations adhering to the Florida Building Code.

See Installation Instructions **RHRW-001**, signed and sealed by Hermes F. Norero, P.E. (FL # 73778) for specific use parameters.

Limits of Use:

1. This product has been evaluated and is in compliance with the Florida Building Code, including the “High Velocity Hurricane Zone” (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment into substrate material shall be beyond wall dressing or stucco.
3. When used in areas requiring wind borne debris protection this product complies with Chapter 16 of the Florida Building Code and does not require an impact resistant covering.
4. Site conditions that deviate from the details of drawing **RHRW-001**, require further engineering analysis by a licensed engineer or registered architect.
5. See Installation Instructions **RHRW-001**, for size and design pressure limitations.

Certification Agency:

The manufacturer has demonstrated compliance of products in accordance with the Florida Building Code for manufacturing under a Certification Agency through **National Accreditation & Management Institute** (FBC Organization #CER1773).



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Performance Standards:

The product described herein has been tested per:

- TAS 201-94
- TAS 202-94
- TAS 203-94

Referenced Data:

1. Product Testing performed by **Architectural Testing, Inc.**
(FBC Organization #TST1558)
Report #: 01-44639.03, Report Date: 12/02/2003
Signed and Sealed by: Joseph Reed, FL PE 58920
2. Certification Agency
National Accreditation & Management Institute
(FBC Organization #CER1773)
3. Cardinal Systems Inc. PVC Material Testing performed by **ETC Laboratories**
(FBC Organization #TST2411)
ASTM D2843, D635, D1929, D638 Testing:
Report #: ETC-04-985-15523.1, Report Date: 06/07/05
Addendum Date: 10/18/05

Summary of Test Data:

PolyOne 6935 White - Rigid PVC Properties		
Test Description	Test Method	Test Results
Self-Ignition Temp.	ASTM D1929	1020 F
Smoke Density Rating (Max.)	ASTM D2843	63.50%
Average Time of Burning	ASTM D635	5 Sec.
Average Extent of Burning	ASTM D635	15 mm
Yield Strength (Mean) Before	ASTM D638	6277.5 PSI
Yield Strength (Mean) After	ASTM D638	6669.2 PSI

PolyOne 87416 White - Rigid PVC Properties		
Test Description	Test Method	Test Results
Self-Ignition Temp.	ASTM D1929	990 F
Smoke Density Rating (Max.)	ASTM D2843	71.20%
Average Time of Burning	ASTM D635	5 Sec.
Average Extent of Burning	ASTM D635	15 mm
Yield Strength (Mean) Before	ASTM D638	6771.9 PSI
Yield Strength (Mean) After	ASTM D638	6670.5 PSI

Test results have been found to comply with the minimum requirements of Chapter 26 of the Florida Building Code.



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Installation: 1. Approved anchor types and substrates are as follows:

Through Frame Installation:

- A. For two by (2X) wood frame substrate, use **#8 Wood Screw** type wood frame anchors of sufficient length to achieve minimum embedment of 1.5" into wood framing.
- B. For concrete or masonry substrate where one by (1X), non-structural, wood bucking is employed, use **3/16" diameter Hilti Kwik Con II or 3/16" diameter ITW Tapcon** type concrete screw anchors of sufficient length to achieve minimum embedment of 1.00" into concrete or masonry.
- C. For concrete or masonry substrate where wood bucking is NOT employed, use **3/16" diameter Hilti Kwik Con II or 3/16" diameter ITW Tapcon** type concrete screw anchors of sufficient length to achieve minimum embedment of 1.00" into concrete or masonry.
- D. For steel stud substrate, use **#10-16 HWH ITW Buildex Teks Select Structural Fasteners** type steel frame anchors of sufficient length to achieve minimum embedment of 3 threads penetration beyond steel framing.

Refer to Installation Instructions (**RHRW-001**) for anchor spacing and more details of the installation requirements.

Design Pressure:

Max. O.A. Size	Design Pressure
47.5" x 47.5"	+/- 100 PSF
47.5" x 94.75"	+/- 80 PSF
71.13" x 71.13"	+/- 68 PSF