Engineering Express®
Product Evaluation Report

September 1st, 2022

Application Number:	FL 20665.3
EX Project Number:	20-29229g
Product Manufacturer:	Oldcastle Building Envelope
Manufacturer Address:	803 Airport Rd Terrell, TX 75150
Product Name & Description:	FG-5750T STORMMAX® STOREFRONT THERMAL IGU IMPACT STOREFRONT SYSTEM LARGE AND SMALL MISSILE (WET AND DRY GLAZED) FOR HIGH VELOCITY HURRICANE ZONES

Scope of Evaluation:

This Product Evaluation Report is being issued in accordance with the requirements of the Florida Department of Business and Professional Regulation (Florida Building Commission) Rule Chapter 61G20-3.005, F.A.C., for statewide acceptance per Method 1 (d). The product noted above has been tested and/or evaluated as summarized herein to show compliance with standard ASCE 7-16 (ASD) and Florida Building Code Seventh Edition (2020) and is, for the purpose intended, at least equivalent to that required by the Standard and Code. Re-evaluation of this product shall be required following pertinent Florida Building Code or ASCE Standard modifications or revisions.

Substantiating Data:

- **PRODUCT EVALUATION DOCUMENTS**

EX Installation Drawing #20-29229h titled "FG-5750T STORMMAX Thermal IGU Storefront System LMI & SMI – (Wet & Dry Glazed) for HVHZ", prepared by Engineering Express, Inc., signed & sealed by Frank Bennardo, P.E. is an integral part of this Evaluation Report, pages 1 through 41.

- **TEST REPORTS**

Uniform static structural performance has been tested in accordance with TAS 202-94 test standards per test report(s) prepared by Construction Consulting Laboratory, International report #(s): CCLI-16-087, CCLI-14-115 signed and sealed by Abdol Rezadad, P.E. and Test report per AAMA 501-05 & TAS 202-94 Prepared by Construction consulting Laboratory report # CCL20-190 dated December 11, 2020, and signed and sealed by Abdol Rezadad, PE

Large missile impact resistance and cyclic loading performance have been tested in accordance with TAS 201-94 & 203-94 & ASTM E1996-09 test standards per test report(s) prepared by Construction Consulting Laboratory, International report #(s): CCLI-16-087, CCLI-14-115 signed and sealed by Abdol Rezadad. P.E.

- **STRUCTURAL ENGINEERING CALCULATIONS**

Structural engineering calculations have been prepared which evaluate the product based on comparative and/or rational analysis to qualify the following design criteria:

- 1. Glass Capacity
- 2. Maximum Allowable Size/Pressure Combinations
- 3. Anchor Spacing

Oldcastle Building Envelope - Series FG-5750T STORMAX Thermal IGU Storefront System LMI & SMI (Wet & Dry Glazed) for HVHZ

No 33% increase in allowable stress has been used in the design of this product.

The following are approved for use in the HVHZ as specified in their corresponding NOAs:

- SentryGlas Interlayer by Kuraray America, Inc.
  - NOA #'s: 21-0324.06 & 20-0915.19
- Trosifol, Clear & Color PVB Interlayer by Kuraray America, Inc.
  - NOA #'s: 20-0915.22
- Safeflex PVB, Clear & Color Interlayer by Eastman Chemical Company
  - NOA #: 21-0216.01 & 20-0622.03
- Setting Block shall comply with 2411.3.3.1 of Florida Building code Seventh Edition 2020

Impact Resistance:

Large Missile Impact Resistance has been demonstrated as evidenced in previously listed test reports and is accounted for in the engineering design of this product.

Wind Load Resistance

This product has been designed to resist wind loads as indicated on its respective Product Evaluation Document (i.e., engineering document).

Installation

The product listed above shall be installed in strict compliance with the Product Evaluation Document (i.e., engineering document), along with all components noted therein.

The product components shall be of the material specified in the Product Evaluation Document (i.e., engineering document).

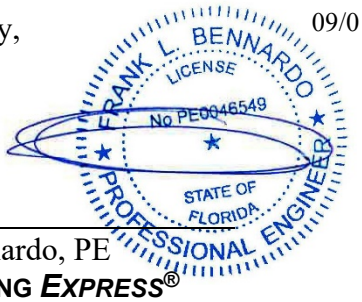
Limitations & Conditions of Use:

Use of each product shall be in strict accordance with its respective Product Evaluation Document (i.e., engineering document) as noted herein.

All supporting host structures shall be designed to resist all superimposed loads and shall be of a material listed in each product's respective anchor schedule. Host structure conditions which are not accounted for in each product's respective anchor schedule shall be designed for on a site-specific basis by a registered professional engineer.

All components which are permanently installed shall be protected against corrosion, contamination, and other such damage at all times. Any alteration to the respective Product Evaluation Document will invalidate it. This product has been designed for use inside and outside of the High Velocity Hurricane Zone (HVHZ)

Respectfully, 09/01/2022



Frank Bennardo, PE
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