



ENGINEERING EXPRESS® PRODUCT EVALUATION REPORT

October 13, 2020

Application Number: FL# 22982.2-R7
EX Project Number: 20-29331

Product Manufacturer: United Glass Systems
Manufacturer Address: 3500 SW 15th Street
Deerfield Beach, FL 33442

Product Name & Description: 6000 Series Aluminum Window Wall
Small Missile Impact (SMI)

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 the Florida Building Code Seventh Edition (2020) and is, for the purpose intended, at least equivalent to that required by the Code. Re-evaluation of this product shall be required following pertinent Florida Building Code modifications or revisions.

Substantiating Data:

- **PRODUCT EVALUATION DOCUMENTS**

EX drawing #20-29331b titled "6000 Series Aluminum Window Wall Small Missile Impact (SMI)", sheets 1-22, prepared by Engineering Express, signed & sealed by Frank Bennardo, PE is an integral part of this Evaluation Report.

- **TEST REPORTS**

Uniform static structural performance has been tested in accordance with TAS 202 and AAMA 501 test standards per test report(s) #H0561.01-450-18, by Architectural Testing, Inc., signed by Gary T. Hartman, P.E.

Large missile impact resistance and cyclic loading performance have been tested in accordance with TAS 201 & 203 test standards per test report(s) #H0561.01-450-18 by Architectural Testing, Inc signed by Gary T. Hartman, 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. Anchor Spacing
2. Maximum Allowable Size/Pressure Combinations
3. Glass Capacity
4. Anchor Capacity

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

United Glass Systems – 6000 Series Aluminum Window Wall – (SMI)

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

- SentryGlas Interlayer by Kuraray America, Inc. (NOA#'s:14-0916.11 & 17-0808.02)

Impact Resistance:

Small 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

Each product has been designed to resist wind loads as indicated in the design schedule(s) on its respective Product Evaluation Document (i.e. engineering drawing).

Installation

Each product listed above shall be installed in strict compliance with its respective Product Evaluation Document (i.e. engineering drawing), along with all components noted therein.

Each product component shall be of the material specified in that product's respective Product Evaluation Document (i.e. engineering drawing).

Limitations & Conditions of Use:

Use of each product shall be in strict accordance with its respective Product Evaluation Document (i.e. engineering drawing) 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.

Each product has been designed for use within and outside of the High Velocity Hurricane Zone (HVHZ).

Respectfully,



Frank Bennardo, PE
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