

Product Evaluation Report

December 17, 2018

Application Number: FL28390.1 – R0
EX Project Number: 18-6492

Product Manufacturer: Eastern Metal Supply
Manufacturer Address: 4268 Westroads Drive
West Palm Beach, FL

Product Name & Description: 2" Clear Bertha Storm Panel
Large Missile Impact Resistant

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 Sixth Edition (2017) 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 #18-6492 titled "2" Clear Bertha Storm Panel", sheets 1-5, prepared by Engineering Express, signed & sealed by Frank L. Bennardo, P.E. is an integral part of this Evaluation Report.

- **TEST REPORTS**

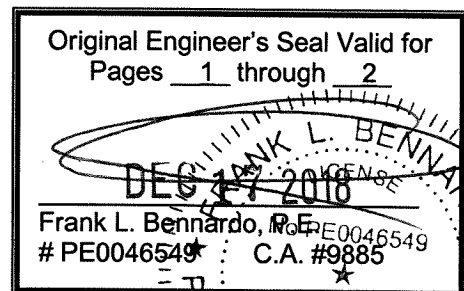
Uniform static structural performance has been tested in accordance with TAS 202 test standards per test report(s) #BT-EMS-18-001 and #BT-EMS-18-004 by Blackwater Testing, Inc. (signed by Constantin Bortes) and report # ATLSF 0615.01-11 by American Test Lab of South Florida (signed by Julio E. Gonzalez).

Large missile impact resistance and cyclic loading performance has been tested in accordance with TAS 201 and TAS 203 test standards per test report(s) #BT-EMS-18-001 and #BT-EMS-18-004 by Blackwater Testing, Inc. (signed by Constantin Bortes) and report # ATLSF 0615.01-11 by American Test Lab of South Florida (signed by Julio E. Gonzalez).

Self ignition temperature, rate of burn and smoke density tests are per test report(s) #ETC01-753-10724.1 and ETC05-718-16934.1 by ETC Laboratories (signed by Joseph L. Doldan)

- **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. Maximum Allowable Spans
2. Minimum Allowable Spans
3. Minimum Glass Separation
4. Anchor Spacing

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

Separation from glazing is not required for installations outside of wind zone 4 and essential facilities.

Impact Resistance:

Large Impact Resistance has been demonstrated as evidenced in previously listed test report(s), 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 in the span schedule(s) on the respective Product Evaluation Document (i.e. engineering drawing).

Installation

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

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

Limitations & Conditions of Use:

Use of this product shall be in strict accordance with the 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 this product's respective anchor schedule. Host structure conditions which are not accounted for in this 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.

This product has been designed for use within and outside the High Velocity Hurricane Zone (HVHZ) as described in the installation instructions.