

ENGINEERING EXPRESS® (EX) PRODUCT EVALUATION REPORT

October 4, 2023

Application Number: FL 28390.2
EX Project Number: 23-65159

Product Manufacturer: Eastern Metal Supply
Manufacturer Address: 4268 Westroads Dr.
West Palm Beach, FL 33407

Product Name & Description: 2" Clear Bertha Storm Panel – Digitally Assisted Edition

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 7-22 (ASD) and the Florida Building Code Eighth Edition (2023) 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 Performance Evaluation document # 23-65159 titled "2" Clear Bertha Storm Panel – Digitally Assisted Edition", prepared by Engineering Express, Inc., signed & sealed by Frank Bennardo, P.E. is an integral part of this Evaluation Report, pages 1 through 5.

- **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)

Eastern Metal Supply – 2” Clear Bertha Storm Panel-Digitally Assisted Edition

- **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

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

Impact Resistance:

Large Missile 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 on its respective Performance Evaluation document (i.e. engineering document).

Installation:

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

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

Limitations & Conditions of Use:

Use of each product shall be in strict accordance with its respective Performance 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 Performance Evaluation document will invalidate it. This product has been designed for use inside and outside of the High Velocity Hurricane Zone (HVHZ & NON-HVHZ).

Respectfully,

Frank Bennardo, P.E.

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