

ENGINEERING EXPRESS® (EX) PRODUCT EVALUATION REPORT

August 11, 2023

Application Number: FL 3227.1
EX Project Number: 23-60448

Product Manufacturer: Wayne-Dalton, A Division of Overhead Door Corporation
Manufacturer Address: 3995 Addison Drive
Pensacola, FL 32514

Product Name & Description: Fabric-Shield Storm Panel

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 # 23-60448 titled "Fabric-Shield Storm Panel", 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 and ASTM E330-02 test standards per test report(s) #HETI-03-1873, HETI-03-1875, HETI-04-1390, Signed and Sealed by Rafael Droz-Seda, P.E; HETI-05-1486, HETI-05-1488, HETI-05-1497, HETI-05-1498, and HETI-05-2055, Signed and Sealed by Ivonne Ghia, P.E, and performed by Hurricane Engineering & Testing Inc. (HETI).

Large missile impact resistance and cyclic loading performance have been tested in accordance with TAS 201 & 203 and/or ASTM E1886-02 & E1996-02 test standards per test report(s) #HETI-03-1885A, HETI-03-1885B, HETI-04-1907, Signed and Sealed by Rafael Droz-Seda, P.E; HETI-05-2053, HETI-05-2054, and HETI-06-4004, Signed and Sealed by Ivonne Ghia, P.E, and performed by Hurricane Engineering & Testing Inc. (HETI).

Fabric tensile capacity has been determined in accordance with ASTM E8 test standard per test reports #HETI-04-T224 Signed and Sealed by Rafael Droz-Seda, P.E; and HETI-05-T370 Signed and Sealed by Ivonne Ghia, P.E, In addition, grommet pullout capacity has been determined in accordance with ASTM E488 standards per test report #HETI-06-T1050 Signed and Sealed by Ivonne Ghia, P.E and performed by Hurricane Engineering & Testing inc. (HETI).

Wayne-Dalton, A Division of Overhead Door Corporation – Fabric Shield Storm Panel

• **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 Size/Pressure Combinations
2. Minimum Allowable Spans
3. System Porosity
4. Anchor Spacing

All acceptance criteria have been met for this shutter as a non-porous system, as defined in ASTM E1996-02 & E1996-09. Separation from the shutter and any glazing behind it is only required in essential facilities and/or when the authority having jurisdiction specifies the optional pass/fail criteria as set forth in ASTM E1996-09.

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 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:

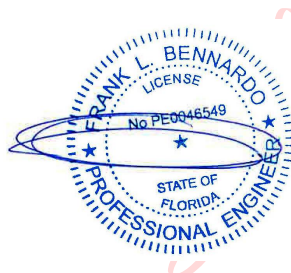
Use of each product shall be in strict accordance with its respective Performance Evaluation document (i.e. engineering document) as noted herein.

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. Valid for use outside of the High-Velocity Hurricane Zone only (non-HVHZ only). Not permitted for use within the HVHZ (Miami-Dade and Broward Counties).

Respectfully,

Frank Bennardo, P.E.
ENGINEERING EXPRESS®
#PE0046549 | Cert. Auth. 9885



Digitally signed
by Frank
Bennardo
Date: 2023.08.17
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