

## **ENGINEERING EXPRESS® PRODUCT EVALUATION REPORT**

December 28, 2023

Application Number: FL8637.1  
EX Project Number: 21-36692

Product Manufacturer: Fenetex  
Manufacturer Address: 259 Ellis Road S  
Jacksonville, FL 32254

Product Name & Description: Fenetex Hurricane Screens  
Impact Resistant Wind Abatement System

### ***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 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 Installation Drawing #21-36692 titled "Fenetex Hurricane Screens", prepared by Engineering Express, Inc., signed & sealed by Richard Neet, P.E. is an integral part of this Evaluation Report, pages 1 through 7.

- **TEST REPORTS**

Ultimate test loading structural performance has been tested in accordance with TAS 201-94, 202-94 & 203-94 along with ASTM E330-02/14(21), ASTM E1996-09/23 & ASTM E1886-05/19 test standards per test report(s):

- #FTL7259 & FTL7243 by Fenestration Test Lab, Inc; Signed and Sealed by Marlin Brinson, P.E.
- #FTL5161 Signed and Sealed by Edmundo Largaespada, PE
- #FTL5204, 5511 and 5808 Signed and Sealed by Carlos Rionda, P.E.
- BT-FET-23-001 signed and sealed by Michael Caldwell, PE.
- Material tests are per report #'s FTL 6284 and 9584

**Fenetex**
*Table 1: MATERIAL PROPERTIES*

<b>FABRIC 1: POLYMESH</b>		
Fiber content		Synthetic Polymer - Proprietary
Weight	(ASTM D3776)	7.6 oz/ yard
Grab Tensile Strength	(ASTM D4632)	540 x 425 LBS
Puncture Strength	(ASTM D4833)	190 LBS
Mullen Burst	(ASTM D3786)	825 PSI
Trapezoidal Tear	(ASTM D4533)	200 x 170 LBS
Abrasion Resistance	(ASTM D-4886)	95% Retained
Puncture	(ASTM D-4833)	190 LBS
UV Retention	(ASTM D-G154)	90%
Percentage of Open Area, Porosity		5% (non-porous)
<b>FABRIC 2: PVC LAMINATE</b>		
Fiber content		Synthetic Polymer - Proprietary
Construction		PVC coated scrim
Weight	(ASTM D751)	35oz/sq yard
Breaking Strength/1"	(ASTM D5034)	528 x 465 LBS
Abrasion Resistance	(ASTM D3384)	6400 Cycles
Fire Retardant		Self Extinguishing
Porosity		0% (non-porous)
<b>FABRIC 3: PVC MESH</b>		
Fiber content		Synthetic Polymer - Proprietary
Construction		PVC coated scrim
Weight	(ASTM D3776)	19oz/sq yard
Breaking Strength	(ASTM D5034)	669 X 835 LBS
Mullen Burst	(ASTM D3786)	Min. 1200
Porosity		9% (non-porous)
<b>OTHER COMPONENTS</b>		
SW-2014-Material		Synthetic Polymer - Proprietary
Tensile Yield	(ASTM D638)	7,000 PSI
Flexural Modulus	(ASTM D790)	250,000 PSI
SW-2015		AL 6063

- **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. Minimum Allowable Unit Width
2. Maximum Allowable Unit Height
3. Anchor Spacing
4. Glass Separation
5. Host Reactions

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

### ***Impact Resistance:***

Impact Resistance (Large Missile Level D) has been demonstrated per the referenced test report. System approved for small missile impact (no opening greater than 3/16"

### ***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.

**Fenetex**

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 & NON-HVHZ).

Respectfully,

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Richard Neet, PE

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