



# ENGINEERING EXPRESS® PRODUCT EVALUATION REPORT

April 14, 2021

Application Number: FL31658.1-R3  
EX Project Number: 20-31266

Product Manufacturer: American Shutter Systems Association, Inc.  
Manufacturer Address: 4268 West Roads Dr.  
West Palm Beach, FL 33407

Product Name & Description: 40mm End Retention Slat Single Wall Roll-Up Hurricane Shutter

## ***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 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**

Engineering Express drawing #20-31266 titled "Single Wall Roll-Up Hurricane Shutter", sheets 1-16, prepared by Engineering Express, signed & sealed by Richard Neet, P.E. are an integral part of this Evaluation Report.

- **TEST REPORTS**

Uniform static structural performance has been tested in accordance with TAS 202-94 and ASTM E330-02 test standards per test report(s) #1127.01-19 (signed and sealed by Stephen. Warter, P.E.), by American Test Lab of South Florida (ATL).

Large missile impact resistance and cyclic loading performance have been tested in accordance with TAS 201 & 203 and ASTM E1996-06 & ASTM E1886-05 test standards per test report(s) #1127.01-19 (signed and sealed by Stephen. Warter, P.E.), by American Test Lab of South Florida (ATL).

- **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 Glass Separation
3. Mullion Spans
4. Anchor Spacing
5. Combinations
6. Anchor Capacity

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

American Shutter Systems Association, Inc. - 40mm End Retention Slat Single Wall Roll-Up Hurricane Shutter

Separation from glazing is required as prescribed in the installation instructions.

### ***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 in the span schedule(s) on the Product Evaluation Document (i.e. engineering drawing).

### ***Installation***

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

The product components shall be of the material specified in the Product Evaluation Document (i.e. engineering drawing).

### ***Limitations & Conditions of Use:***

Use of this product shall be in strict accordance with the 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),

Respectfully,



Richard Neet, P.E.

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