

Product Evaluation

SHU105 | 0921

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: SHU-105

Effective Date: September 1, 2021

Re-evaluation Date: September 2025

Product Name: Extruded Aluminum Colonial Hurricane Shutters, Impact Resistant

Manufacturer: Fortified Building Products, Inc.
2001 W. Government Street
Pensacola, FL 32502
(850) 432-2485

General Description:

The Colonial shutters are constructed from 6063 T-6 extruded aluminum alloy. The shutter panel consists of an extruded aluminum hollow section in the jambs, head, and sill. Each louver blade measures 1.500" x 0.313" x 0.060". The evaluation report includes the following shutter assemblies:

System	Configuration	Maximum Frame Dimensions
1	2-Panel	38.5" x 88"
2	2-Piece Bi-fold	77" x 88.87"

The 38.5" wide x 88.0" high shutter has two panels, each secured to the structure through (5) hinged mounting brackets along each jamb. Each shutter panel is secured to the structure with a latch and locking pin assembly at the head and sill centerline. In addition, a horizontal storm bar is required to be attached at the midspan along the entire shutter width.

The 77.0" wide x 88.87" high shutter is a 2-piece bi-fold shutter. Each panel is secured to the structure through (5) hinged mounting brackets along each jamb. Each shutter panel is secured to the structure with a latch and locking pin assembly or with "Z" retainer clips at the head and sill centerline and at each bi-fold location. In addition, a horizontal storm bar is required to be attached at the midspan along each shutter width.

The shutters may be secured to concrete, concrete hollow block or wood framing.

The shutters are permanently mounted to the outside of the structure.

Limitations:

Design Drawings:

System 1: "Extruded Aluminum Colonial Hurricane Shutter 'Impact';" Drawing TX-5148; manufactured by Fortified Building Products, Inc.; Sheets 1 thru 5 of 5; dated January 21, 2021; signed, sealed, and dated July 14, 2021, by Lyndon F. Schmidt, P.E. The stated drawings will be referred to as approved drawings in this report.

System 2: "Extruded Aluminum Colonial Hurricane Shutter 'Impact';" Drawing TX-5149; manufactured by Fortified Building Products, Inc.; Sheets 1 thru 7 of 7; dated January 21, 2021; signed, sealed, and dated July 14, 2021, by Lyndon F. Schmidt, P.E. The stated drawings will be referred to as approved drawings in this report.

Shutter Configurations: The Colonial shutters are installed as either a 2-Panel configuration or a 2-Piece Bi-Fold configuration. Refer to the approved drawings for an illustration of the shutter assemblies.

Mounting Conditions: The Colonial shutters must be wall mounted. Refer to the approved drawings for the specific mounting requirements.

Wall Construction: The Colonial may be mounted to the following types of wall framing:

- Wood (minimum Spruce-Pine-Fir dimension lumber, S.G. = 0.42).
- Concrete (minimum 3,000 psi)
- Hollow concrete block (ASTM C90)

Allowable Design Pressure: The allowable design pressure is as shown below:

System 1: +/-100.0 psf

System 2: +65.0 / -65.0 psf (with pin latch)

System 2: +80.0 / -90.0 psf (with Z clip latch)

Note: The shutters must be in a closed and locked position to achieve the allowable design pressure rating

Maximum Overall Dimensions:

System 1: 38.5" wide x 88" high

System 2: 77" wide x 88.87" high.

Minimum Separation from Glass: The minimum glazing separation requirements are specified on the drawing. The shutter assembly is considered a non-porous impact protective system. No minimum separation from glass is required unless installed on essential facilities. The shutters may not be installed below a height of 30 feet on essential facilities as defined ASTM E 1996-14a.

Product Identification:

System 1: The shutter assembly has a permanent label that indicates the manufacturer (Fortified Building Products, Inc.); the name of the product (Extruded Aluminum Colonial Hurricane Shutter, Impact Resistant Shutters); the missile level (Large Missile Impact); the test standards (TAS 201-94, 202-94, and 203-94; and the drawing number (TX-5148).

System 2: The shutter assembly has a permanent label that indicates the manufacturer (Fortified Building Products, Inc.); the name of the product (Extruded Aluminum Colonial Hurricane Shutter, Impact Resistant Shutters); the missile level (Missile Level D); the test standards (ASTM E 330-02; ASTM E 1886-02, ASTM E 1996-02); and the drawing number (TX-5149).

Compliance: The shutter assemblies passed test criteria equivalent to ASTM E 330-14; ASTM E 1886-13a, and ASTM E 1996-14a.

Impact Resistance: These shutter assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris. The assemblies passed Missile Level D specified in ASTM E 1996-14a. The assemblies may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded. The shutters may not be installed below a height of 30 feet on essential facilities as defined ASTM E 1996-14a.

Installation Instructions:

General Installation Requirements: The shutters must be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this product evaluation report. Copies of the approved drawings must be available on the jobsite during inspection of the shutter assembly.

Anchorage: The shutters must be anchored to the structure in accordance with the approved drawings.

Note: Keep the manufacturer's installation instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.