

Product Evaluation

SHU239 | 0821

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-239

Effective Date: August 1, 2021

Re-evaluation Date: August 2025

Product Name: 58mm Roll-Up Shutter System

Manufacturer: National Approved Shutter Association
15701 S.W. 29th Street
Suite 100
Miramar, FL 33027
(786) 621-6706

General Description:

The extruded aluminum roll-up shutter system specified in this evaluation report is a permanently mounted impact protective system. The roll-up shutter system is constructed with 58mm extruded aluminum slats. The shutter system has a shutter housing located at the top of the assembly for the slats to roll up into. The roll-up shutter system consists of the following configurations:

Single Unit

Consecutive Single Units with Intermediate Mullions

Product Identification: The roll-up shutter systems have permanently mounted labels that indicate the manufacturer (National Approved Shutter Association); the name of the product (58mm Aluminum Roll-Up Storm Shutter; the TDI product evaluation report number (SHU-239);

the missile level (Missile Level D, Large Missile Rated); and the test standards: ASTM E 330-02, ASTM E 1886-05, ASTM E 1996-06, TAS 201-94, TAS 202-94, and TAS 203-94.

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

Limitations:

Mounting Conditions: The shutters may be wall mounted, trap mounted, or build-out mounted. Refer to the approved drawings for the acceptable mounting conditions.

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

- Cast-in-place concrete (minimum compressive strength specified on drawings)
- Grout-filled concrete masonry units (CMU), ASTM C-90
- Wood (minimum specific gravity; $SG \geq 0.42$)
- Aluminum (minimum 1/8" thick; 6063-T6)
- Steel (minimum 1/8" thick; A36)

Design Drawings: The roll-up shutters are installed in accordance with National Approved Shutter Association, Drawing No. 21-0501; Sheets 1-11 of 11; dated March 2, 2021; with each sheet signed, sealed, and dated by John Henry Kampmann Jr., P.E. on July 19, 2021. The stated drawings will be referred to as approved drawings in this report. A copy of the approved drawings shall be available at the job site.

Allowable Design Pressure: The allowable design pressure is a function of several items including end retention, anchor spacing, mounting condition, substrate, slat span, and mullions. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is ± 120 psf.

Minimum Separation from Glass: The shutter assembly is considered a non-porous impact protective system. No separation from glass is required. The shutters may not be installed on essential facilities as defined in ASTM E 1996-14a.

Maximum Allowable Slat Span: The maximum slat span is 252". Refer to the approved drawings for specific slat span limitations.

Maximum Height: The maximum height for the shutter assembly is 15'-0".

Maximum Width: The maximum width for single units is a function of the allowable slat span. For consecutive single units with mullions, the overall width is unlimited; however, the width of individual units in the assembly is limited by the slat span.

Impact Resistance: These products satisfy TDI's criteria for protection from windborne debris. The shutters passed the equivalent of Missile Level D specified in ASTM E 1996-14a. The shutter assemblies may be installed at any height on the structure that does not exceed the design pressure rating for the assemblies. The shutters may not be installed on essential facilities as defined in ASTM E 1996-14a.

Installation:

General Installation Instructions: Install shutters in accordance with the approved drawings and this product evaluation.

Anchorage: The shutters are anchored to the structure in accordance with the approved drawings. Anchorage of the shutters must follow the mounting details on the drawings and the fasteners specified in the mounting details and fastener schedules.

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