

Product Evaluation

SHU240 | 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-240

Effective Date: August 1, 2021

Re-evaluation Date: August 2025

Product Name: Single Wall Roll-Up Shutters

Manufacturer: American Shutter Systems Association
4268 West Roads Drive
West Palm Beach, FL 33407
(800) 432-2204

Eastern Metal Supply
9400 Telge Road
Houston, TX 77095
(800) 996-6061

General Description:

The single wall roll-up shutters are a permanently mounted impact protective system. The roll-up shutter components are manufactured of 6063-T6 extruded aluminum. The slats roll-up into a shutter housing located at the top of the assembly.

Limitations:

Design Drawings:

"Single Wall Roll-Up Hurricane Shutter," manufactured by American Shutter Systems Association; Drawing No. 20-26533; Sheets 1–16 of 16; dated February 28, 2020; revised April 14, 2021; signed, sealed, and dated May 27, 2021, by Frank L. Bennardo, P.E. The stated drawings will be referred to as approved drawings in this report.

Roll-Up Slat End Retention Options:

- End retention, screw in each slat
- End retention, screw in every other slat

Roll-Up Shutter Configurations:

- Single unit without mullions
- Consecutive single units with mullions

Mounting Conditions:

- Wall mount
- Inside/trapped mount
- Build-out mount

Wall Construction: The roll-up shutters may be mounted to the following types of wall framing:

- Pre-cast concrete, cast-in-place concrete (minimum compressive strength required specified in drawings)
- Grout-filled block concrete masonry units (CMU);
- Hollow block concrete masonry (CMU)
- Wood (minimum Southern Yellow Pine dimension lumber, S.G. = 0.55)
- Aluminum (minimum 6063-T6, 1/8" thickness)

Allowable Design Pressure: The allowable design pressure is a function of slat span, mounting condition, anchors, mullion span, and substrate. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is +/-150 psf.

Maximum Slat Span: The maximum allowable slat span is 241-1/2". Refer to the approved drawings for allowable slat spans for specific installation configurations.

Maximum Width: Shutter width is unlimited as long the allowable slat span is not exceeded. Refer to the approved drawings for multi-span construction requirements.

Maximum Height: The maximum shutter assembly height is 252".

Minimum Separation from Glass: The minimum separation from glass is a function of the slat span. The minimum glazing separation is only required when the roll-up shutters are used in essential facilities as defined in ASCE 7. Refer to separation distance requirements in tables in the approved drawing. The shutters may not be installed below a height of 30 feet on essential facilities.

Product Identification: The roll-up shutter assemblies have a permanently mounted label that indicates the manufacturer (American Shutter Systems Association, Inc., West Palm Beach, FL); the name of the product (Single Wall (63mm Roll Shutter); the missile level (Missile Level D & Large Missile Impact Rated); and the test standards: ASTM E 330, ASTM E 1886, ASTM E 1996, TAS 201, TAS 202, TAS 203.

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

Impact Resistance: This roll-up shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne. The assemblies passed Missile Level D specified in ASTM E 1996-14a. The assembly 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.

Installation Instructions:

General Installation Requirements: The roll-up 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 roll-up 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 the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.