

Product Evaluation

SHU217 | 1120

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-217

Effective Date: November 1, 2020

Re-evaluation Date: November 2024

Product Name: 40mm End Retention and Non-End Retention Bertha 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 40mm End Retention (ER) and Non-End Retention (NER) roll-up shutters are manufactured of minimum 6063-T6 extruded aluminum. The shutter consists of 40 mm extruded aluminum slats. The shutters are a permanently mounted impact protective system.

Limitations:

Design Drawings:

"40mm Slat Bertha Roll-Up Hurricane Shutter End Retention (ER) and Non-End Retention (NER);" manufactured by American Shutter Systems Association; Drawing No. 19-18642; Sheets 1-28 of 28, dated April 20, 2020; signed, sealed, and dated April 27, 2020 by Frank L. Bennardo, P.E. The stated drawings will be referred to as approved drawings in this report.

Roll-Up Configurations:

- End Retention Option: Single Span, Single Span with mullions
- Non-End Retention Option: Single span without storm bar; single span with storm bars, single span with mullions, single span with mullions and storm bars.

Mounting Conditions: The roll-up shutters may be wall mounted, build-out mounted, inside/trapped mounted, face mounted, or trapped mounted. Refer to the approved drawings for specific mounting conditions.

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 track to track width, mullion span, mounting condition, anchors, and substrate. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is +/-120 psf.

Maximum Slat Span: The maximum allowable slat span is 192". Refer to the approved drawings for allowable slat span for specific 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.

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.

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 (40mm Slat Bertha Roll-Up Hurricane Shutter); the missile level (Missile Level D); and the test standards: ASTM E 330-02, ASTM E 1886-05, and ASTM E 1996-06.

Impact Resistance: This roll-up shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne. The assembly may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded.

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.