



Product Evaluation

SHU224 | 0916

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-224

Effective Date: September 1, 2016

Re-evaluation Date: September 2020

Product Name: 58mm ER & NER Slat Bertha Impact Protective Roll-Up Shutters

Manufacturer: American Shutter Systems Association, Inc.
4268 Westroads Drive
West Palm Beach, FL 33407
(877) 999-2772

General Description:

The roll-up shutters are manufactured of extruded aluminum and are assembled using extruded aluminum interlocking slats. The extruded aluminum closed slats are 2.698" x 0.567" x 0.050". The roll-up shutters are available as end retention (ER) systems and non-end retention (NER) systems. Consecutive single spans and multiple spans are connected by mullions. Shutters may be constructed with storm bars or with mullions to increase the overall width of the shutter.

Design Drawings:

- "58mm ER & NER Slat Bertha Impact Protective Rolling System," manufactured by American Shutter Systems Association, Inc., Drawing No. 15-248, Sheets 1–27 of 27, dated July 15, 2015, signed, sealed, and dated July 22, 2015 by Walter A. Tillit, P.E.. The stated drawings will be referred to as approved drawings in this report.

Limitations:**Configurations:**

- End Retention System
 - Single Units (No Mullions)
 - Consecutive Units (With Mullions)
- Non End Retention System
 - Single Units (No Storm Bars)
 - Multiple Units (Storm Bars Required)
 - Consecutive Single Units (No Storm Bars)
 - Consecutive Multiple Units (Storm Bars)

Mounting Conditions:

- Wall Mount
- 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 concrete masonry units (CMU)
- Wood (minimum Southern Yellow Pine dimension lumber, S.G. = 0.55).

Allowable Design Pressure: The allowable design pressure is a function of slat span, end retention, mounting condition, anchors, minimum glazing separation, storm bars, and mullions. The maximum allowable design pressure is +/-140.0 psf. Refer to the approved drawings for the allowable design pressure for a specific installation condition.

Maximum Slat Span: The maximum allowable slat span is a function of retention system, design pressure, minimum glass separation, mounting condition, substrate, and anchors. Refer to the approved drawings for allowable slat spans for specific configurations.

Maximum Shutter Height: The maximum allowable shutter height is 21'-0". The allowable shutter height may be less for shutter configurations with mullions. Refer to the approved drawings for allowable shutter heights for specific shutter configurations.

Minimum Separation from Glass: The minimum glazing separation from glass is specified on the approved drawings.

Product Identification: The roll-up shutter assemblies must have a manufacturer-produced label that indicates the manufacturer: "American Shutter Systems Association, Inc.", the name of the product: "58mm ER & NER Slat Bertha Impact Protective Rolling System", the missile Level: Missile Level D, and compliance with ASTM E 330-02, ASTM E 1886-04, and ASTM E 1996-04.

Impact Resistance: This roll-up shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris in both the **Inland I zone** and the **Seaward zone**. The assembly passed Missile Level D specified in ASTM E 1996. 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:

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. Anchorage of the roll-up shutters to concrete, grout-filled concrete masonry units (CMU), and wood wall framing must follow the mounting conditions and fastener options specified on the approved drawings.

Storm Bars: Anchorage and installation requirements for storm bars must be as specified on 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, the IBC, and the Texas Revisions.