

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION SHU-144

Effective May 1, 2014

*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 shall be subject to reevaluation **June 2016**.*

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.

ES 55 SUP End Retention Aluminum Roll Up Shutters, Impact Resistant, manufactured by

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Fort Myers, Florida 33912
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will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation and the design drawings referenced in this evaluation report.

PRODUCT DESCRIPTION

The ES 55 SUP roll up shutters are manufactured from extruded aluminum. The roll up shutters are assembled using interlocking extruded aluminum slats. The major components of the roll up shutter system are as follows:

Slat 1 (ES55 SUP): 55 mm slats manufactured from 6063-T6 aluminum alloy. The slat size is 2.52" x 0.52".

Slat 1A (ES55 LEX): 55 mm slat manufactured from 6063-T6 aluminum alloy with Lexan insert. The slat size is 2.52" x 0.52" and the Lexan insert is 0.875" x 0.093".

End Slat: TE14X56U end slat is extruded from 6063-T6 aluminum alloy. The slat measures 2.52" x 0.55".

Aluminum Side Rails: Manufactured from 6063-T6 aluminum. The aluminum side rails are 3.150" in length and 1.150" in depth.

Aluminum Tubes: Manufactured of 6063-T6 aluminum. The tubes are 3" x 3" or 3" x 2". The wall thickness is 0.13".

Mullion Tubes: Manufactured of 6063-T6 aluminum. The mullions are 4" wide. The mullions are available in 4", 6" and 8" depths. The wall thickness is 0.25".

Mullion Clip Angle: Manufactured of 6063-T6 aluminum. The mullion clip angle is 2" x 2" x 0.25". The mullion clip angle is used to secure each end of the mullion to the structure.

LIMITATIONS

Design Drawings: "ES 55 SUP Rolling Shutter," Drawing No. 13-068, sheets 1 through 11 of 11, dated March 13, 2013, signed and sealed by Pedro De Figueiredo, P.E. on March 17, 2014. 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.

Design Pressure Rating: The design pressure rating for the roll up shutters is dependant on several factors, including the span, the mounting condition, and the mullion span. Refer to the approved drawings to determine the allowable design pressure rating for the shutter assembly based on the configuration of the roll-up shutter assembly used. In no case shall the design pressure rating exceed 120 psf.

Separation Distance from Glazed Openings: This product has no required minimum separation distance from glazed openings except as noted in the approved drawings.

Span Configurations: The shutters can be installed as a single span configuration or a multiple span configuration. Multiple span configurations require a vertical mullion.

Mounting Configurations: The shutters may be mounted directly to the outside of the wall opening (see page 4 of 11 of the approved drawings); mounted inside the wall opening using aluminum tubes (see pages 5 and 6 of 11 of the approved drawings); and built-out from the outside of the wall opening using aluminum tubes (see pages 7 and 8 of 11).

Wall Framing Construction: The shutters may be mounted to concrete (minimum compressive strength specified on approved design drawings); grout-filled concrete block, wood framing with a minimum specific gravity of 0.55, steel (minimum 1/4" thick A36), or aluminum (minimum 1/4" thick, 6063-T6).

Maximum Spans: The maximum allowable spans are specified on page 1 of 11. In no case shall the span exceed $287 \frac{1}{16}$ inches.

Maximum Mullion Height: The maximum allowable vertical mullion height is specified in a table on page 9 of 11 of the approved drawings.

Product Identification: The shutters shall be labeled with the manufacturer's name, the name of the product, the design pressure rating for the shutter installed, and the test standards: ASTM E 330-02, ASTM E 1886-04, and ASTM E 1996-04.

Impact Resistance: These shutter assemblies satisfies the Texas Department of Insurance's criteria for protection from windborne debris in both the **Inland I zone** and the **Seaward zone**. The shutter assemblies passed Missile Level D specified in ASTM E 1996-04. The shutter assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.

INSTALLATION INSTRUCTIONS

General Installation Requirements: The ES55 SUP roll up shutters shall be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this product evaluation report.

Note: All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions. A copy of the approved drawings shall be available at the job site.