TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104 Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION

SHU-203

Effective April 1, 2012

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 **August 2014**.

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.

Series RLL-55-X and A-200-H Extruded Aluminum Slat Roll-Up Shutters manufactured by:

Rollac Shutter of Texas, Inc. 5331 Orange Street Pearland, Texas 77581 (800) 880-0922

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

General: All of the slat roll-up shutter systems specified in this product evaluation report are permanently mounted impact protective systems. The slats are mounted with the following components: mullions, rails, and reel box assembly. Consecutive single spans and multiple spans are connected with mullions. All aluminum extrusions shall be 6063-T6 aluminum alloy unless otherwise noted on the drawings. The shutters may be wall mounted, side wall mounted, build-out or any combination thereof.

Slat Types:

RLL 55-X Slat: This slat is produced from either 6061-T6 or 6005-T5 aluminum alloy. This aluminum slat has a total width of 2.166", a maximum depth of 0.508", and a typical wall thickness of 0.048".

A-200-H Slat: This slat is produced from aluminum alloy 3005-H48 sheet metal and is injected with a foam plastic core. This foam plastic core is produced from two components mixed in 100/100 parts by weight Elastopor P12041 R (1.06 specific gravity) Resin and Elastopor P1001 U (1.22 specific gravity) Isocyanate. This aluminum slat has a total width of 2.598", a maximum depth of 0.531" and a typical wall thickness of 0.019".

LIMITATIONS

Design Drawings: The roll-up shutters shall be installed in accordance with Rollac Shutters of Texas, Incorporated, Drawing No. 10-035, Sheets 1–13 of 13, dated March 10, 2010, revision 1, dated March 12, 2012, with each sheet signed and sealed by Walter A. Tillit Jr., P.E. on March 14, 2012. 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.

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

- Cast-in-place concrete (minimum 3,192 psi)
- Grout-filled concrete masonry units (CMU), C-90
- Wood (minimum Southern Pine)

Allowable Design Pressure: The allowable design pressure is a function of several factors such as the slat type and slat span. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is ±72 psf for the RLL 55-X slat and ±195 psf for the A-200-H slat.

Maximum Slat Span: The maximum allowable slat span is $5'-2\frac{1}{2}$ " for the RLL 55-X slat at ± 72 psf and 2'-3" for the A-200-H slat a ± 195 psf.

Minimum Separation from Glass: The minimum separation distance to the glass is specified in the Maximum Shutter Span Table on sheet 10 of 13.

Product Identification: Each unit must bear a permanent label containing the product evaluation holder, the evaluation number and contact information for the authorized dealer-fabricator of the installed product.

Impact Resistance: This 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 shutter assemblies passed an impact test standard equivalent to Missile Level D specified in ASTM E 1996-05. 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: All shutters shall be installed in accordance with the approved drawings. All assemblies must adhere to the limitations section of this evaluation.

Anchorage: The shutters shall be anchored to the structure in accordance with the approved drawings.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.