TDI | Texas Department of Insurance

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Product Evaluation

SHU179 | 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-179

Effective Date: November 1, 2020
Re-evaluation Date: November 2024

Product Name: Series RLL-55-X End Retention Extruded Aluminum Slat Roll-Up Shutters

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

General Description:
The Series RLL-55-X End Retention Extruded Aluminum Slat Roll-Up Shutters 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 are 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".

Limitations:

Design Drawings: The roll-up shutters are installed in accordance with Rollac Shutters of Texas, Inc; Drawing No. 20-044; Sheets 1 through 19 of 19; Revision 1, dated March 18, 2020; with each sheet signed and sealed by Walter A. Tillit Jr., P.E. on March 19, 2020. 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 roll-up shutters may be mounted to the following types of wall framing:

- Cast-in-place concrete (minimum 2,899 psi)
- Grout-filled concrete masonry units (CMU), C-90
- Wood (minimum Southern Pine; s.g.=0.55)

Maximum Allowable Design Load (Wood): ±30 psf to ±60 psf. This rating is for installation into wood frame structures. The wood wall framing may be minimum No. 2 Southern Yellow, Douglas Fir-Larch, or Spruce-Pine-Fir. The allowable design pressure, slat span, anchor spacing, mounting condition, and minimum separation from the glass is detailed on sheets 18 and 19 of 19 on the approved drawings. The slat span, in inches, must be used to determine the allowable design pressure.

Maximum Allowable Design Load (Concrete and Concrete Masonry Units (CMU)): ±30 psf to +120/-160 psf. The allowable design pressure slat span, anchor spacing, mounting condition, and minimum separation from the glass is detailed on sheets 10, 11, 15, 16, and 17 of 19 of the approved drawings. The slat span, in inches, must be used to determine the allowable design pressure.

Maximum Slat Span: The maximum allowable slat span is 19'-8". Refer to the approved drawings for specific slat spans.

Maximum Mullion Span: The maximum span of the shutter system with consecutive spans and/or multiple spans is also dependent on the mullion span which is determined using the information in the applicable tables on sheets 15, 16, and 17 of 19 of the approved drawings. The mullion span is determined from the design pressure, the mullion spacing and the type of mullion.

Minimum Separation from Glass: The shutter must be separated from the glass by the separation schedule in the approved drawings on sheet 10 of 19 for concrete and CMU installations, and sheet 18 of 19 for wood installations,

Product Identification: The roll-up shutter assemblies have a permanently mounted label that indicates the manufacturer (Rollac Shutter of Texas, Inc); the name of the product (Series RLL-55-X Slat End Retention); the missile level (Missile Level D); and the test standards: ASTM E 330-14, ASTM E 1886-13a, and ASTM E 1996-14a.

Impact Resistance: This shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris. 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:
General Installation Requirements: All shutters must be installed in accordance with the approved drawings. All assemblies must adhere to the limitations section of this evaluation.

Anchorage: The 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.