

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION SHU-57

Effective Date: June 1, 2013

*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 **January 2017**.*

*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.*

**55mm Extruded Aluminum Roll-Up Shutter** manufactured by

**Aramco, Inc.**  
**5105 Broadway**  
**Galveston, Texas 77551**  
**(409) 762-9652**

will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation.

## PRODUCT DESCRIPTION

The 55mm extruded aluminum roll-up shutter is a 6063-T6 aluminum alloy permanently mounted impact protective system. The aluminum slats have a total width of 2.577" and a depth of 0.562" and a typical wall thickness of 0.061". The slats are mounted with the following components: reel box assembly; mullions, and track. The overall horizontal span of the system can be increased by the use of mullions that create multiple spans. All aluminum extrusions shall be 6063-T6 aluminum alloy unless otherwise noted on the drawings. The shutters may be wall mounted as shown on the approved drawings.

**Product Identification:** A permanent label will be applied to the shutter. The label includes the manufacturer's name, the name of the product, Missile Level D, the design pressure rating, and the following applicable standards: ASTM E 1886-04, ASTM E 1996-04 and ASTM E 330-02.

## LIMITATIONS

**Design Drawings:** The Aramco shutters shall be installed in accordance with Aramco Storm Protection 55 mm Roll-up Shutter, drawing no. 12-162, sheets 1-5 of 5, dated October 27, 2012, signed and sealed by Walter A. Tillit, Jr., P.E. on October 29, 2012. The referenced drawings will be referred to as the "approved drawings" in this product evaluation report.

**Maximum Single Slat Span:** The maximum allowable blade span for a single unit is 5'-0".

**Maximum Allowable Design Pressure:** ±60 psf

**Maximum Mullion Span:** The maximum span of the shutter system with consecutive spans and/or multiple spans is dependent on the mullion span which is determined using the "Mullion Height Schedule" on sheet 5 of 5 of the approved drawings. The mullion span is determined from the design pressure and the mullion mounting type.

**Separation Distance from Glazed Openings:** The shutter shall be separated from the glazing in accordance with the Minimum Separation to Glass Schedule on sheet 2 of 5 of the approved drawings.

**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-resisting standard equivalent to 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:** All shutters shall be installed in accordance with the approved drawings.

**Mounting Conditions:** The shutter system shall be mounted and anchored in accordance with the mounting conditions shown on the drawings. For attachment to any wood framing members, the wood framing members shall be a minimum Spruce-Pine-Fir lumber ( $SG \geq 0.42$ ), and lag screws shall have a minimum penetration of  $1 \frac{1}{2}$ " or  $2 \frac{1}{2}$ " into the wood framing members depending on the attachment condition as shown on sheet 5 of 5 of the approved drawings.

**Slat Engagement:** The slats shall fully penetrate into the side tracks with a  $\frac{1}{4}$ " maximum allowed gap between end of slats and interior wall of track.

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