

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

Effective November 1, 2013

SHU-191

*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 **November 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.

AHT SUPERSPAN Hurricane Impact Rolling Wall Shutters, manufactured by

Advanced Hurricane Technology, Inc.
6063 Janes Lane
Naples, Florida 34109
Telephone: (239) 595-0022
www.aht-usa.net

will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation and the approved drawings that are referenced in this evaluation report.

PRODUCT DESCRIPTION

The rolling wall shutters are designed as a permanently mounted impact protective system. The slats of the AHT SUPERSPAN hurricane impact rolling wall shutter measures 2.84" in width, 0.59" in depth, with a typical wall thickness of 0.050". The slats are constructed as indicated in the approved drawings using extruded aluminum alloy 6063-T6. The nylon slat lock rolling wall shutter measures 2.36" in width and 0.55" in depth. The overall span of the assembly can be increased using storm bars. The overall width of the assembly can be increased using mullions.

LIMITATIONS

Design Drawings: The rolling wall shutters shall be installed in accordance with AHT SUPERSPAN Hurricane Impact Rolling Wall Large & Small Missile Impacted Rated, by Advanced Hurricane Technology, Drawing No. 09-199, Sheets 1–13 of 13, dated September 08, 2009, with each sheet signed, sealed, and dated by Pedro Figueiredo, P.E. on January 25, 2010. 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.

Shutter Configurations: The rolling wall shutters may be installed as a single span unit or as multi-span assemblies with the use of storm bars and mullions.

Mounting Conditions: The shutters may be wall mounted, angle mounted, build-out, mullion mounted, or any combination thereof. Refer to the approved drawings for the mounting conditions.

Wall Construction: The roll-up shutters may be mounted to the following types of wall framing:

- Pre-cast concrete, cast-in-place concrete (minimum 2,899 psi)
- Grout-filled concrete masonry units (CMU), C-90
- Wood (minimum Southern Yellow Pine dimension lumber).
- Aluminum, minimum $\frac{1}{4}$ " thick, 6063-T6
- Steel, minimum $\frac{3}{16}$ " thick, A36

Allowable Design Pressure: The allowable design pressure is a function of the slat span, anchor spacing, mounting condition, and the minimum separation from the glass. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is ± 200 psf.

Anchorage: The rolling wall shutters shall be anchored to the structure in accordance with the approved drawings. Anchorage of shutters to concrete, grout-filled concrete masonry units (CMU), wood framing, aluminum, or steel shall follow the mounting details on the drawings and the fasteners specified in the mounting details.

Maximum Slat Span: The maximum allowable slat span for single span multi-span assemblies is specified on the approved drawings. The maximum allowable slat span is 285.4 inches.

Shutter Height: The allowable shutter height varies. The maximum allowable shutter height is $253\frac{1}{2}$ inches. Refer to the approved drawings for the allowable shutter height for single span and multi-span shutters.

Minimum Separation from Glass: The minimum separation distance to the glass is detailed on Sheet 1 of 13 of the approved drawings.

Product Identification: The shutter assemblies shall have a label that identifies the manufacturer, the name of the product, compliance with ASTM E 330, and compliance with ASTM E 1886 and ASTM E 1996.

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 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 rolling wall shutters shall be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this product evaluation report. During a high wind event, the shutters shall be locked and in the closed position.

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

- Pre-cast concrete, cast-in-place concrete (minimum 2,899 psi)
- Grout-filled concrete masonry units (CMU), C-90
- Wood (minimum Southern Yellow Pine dimension lumber).
- Aluminum, minimum $\frac{1}{4}$ " thick, 6063-T6
- Steel, minimum $\frac{3}{16}$ " thick, A36

Anchorage: The shutters shall be anchored to the structure in accordance with the approved drawings. Anchorage of shutters to concrete, grout-filled concrete masonry units (CMU), wood framing, aluminum, or steel shall follow the mounting details on the approved drawings and the fasteners specified in the mounting details. Anchorage of shutters to the mullions and the anchorage of the mullions to the structure shall be as specified on the approved drawings. Minimum edge distances and minimum embedment depths for all fasteners that penetrate into the structure shall be as specified on the design drawings.

Note: The manufacturer's installation instructions and the approved drawings 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.