

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION

SHU-176

Effective July 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 **July 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.*

### 6.8 Accordion Shutter System manufactured by

**Town & Country Industries**  
**400 West McNab Road**  
**Fort Lauderdale, Florida 33309**  
**Telephone: (954) 970-9999**

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 drawing referenced in this evaluation report.

## PRODUCT DESCRIPTION

The 6.8 blade of the accordion shutter measures 4.603" wide x 0.054" thick, constructed as indicated in the approved drawings using extruded aluminum alloy 6063-T6 with a minimum  $F_y = 25$  ksi. The accordion blades may be mounted to the opening using the extrusions illustrated in the approved drawings. All aluminum extrusions shall be constructed using extruded aluminum alloy as noted on the approved drawings. The accordion shutter is a permanently mounted impact protection system. The shutters may be installed to substrates constructed of wood, concrete, or hollow concrete block.

**Product Identification:** Each unit shall bear a permanent label containing the manufacturer's name, the name of the product, Missile Level D, the design pressure rating, and the following applicable standards: ASTM E 1886, ASTM E 1996, and ASTM E 330.

## LIMITATIONS

**Design Drawings:** The accordion shutters shall be installed in accordance with "Eyewall Armor Hurricane Protection 6.8 Accordion Shutter," drawing No. 08-363, dated 1-27-2009, Revision 2, dated 5-29-2009, Sheets 1 through 11, signed, sealed, and dated 5-29-2009 by V.J. Knezevich, P.E. The stated drawings are referred to as the approved drawings in this evaluation report.

**Wall Construction:** The shutters may be secured to wood, concrete, or hollow concrete block substrates.

**Maximum Allowable Design Load:** Maximum +/-200 psf. Refer to the approved drawings for the appropriate design pressure for a specific installation.

**Maximum Span:** The maximum allowable blade span when attached to wood, concrete or concrete masonry units is 13'-0". Refer to the approved drawings for the appropriate blade span for a specific installation and design pressure.

**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 1996-05. 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:**

The accordion shutters shall be installed in accordance with the approved drawings.

### **Anchorage:**

The shutters shall be anchored in accordance with the mounting details and the anchor schedules on the approved drawings.

The maximum spacing, minimum edge distance, and minimum embedment for anchors used for the attachment of the shutter assembly to concrete is specified on sheet 10 of 11 of the approved drawings.

The maximum spacing, minimum edge distance, and minimum embedment for anchors used for the attachment of the shutter assembly to hollow concrete block is specified on sheet 11 of 11 of the approved drawings.

The maximum spacing and minimum embedment for anchors used for the attachment of the shutter assembly to wood is specified on sheet 11 of 11 of the approved drawings.

**Note:** The manufacturer's installation instructions and 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.