

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION SHU-196

Effective September 1, 2011

*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 2015**.*

*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.*

### **0.050" Aluminum Storm Panels** manufactured by:

**Cat 5 Hurricane Products, LLC**  
**6216 28<sup>th</sup> Street East**  
**Bradenton, Florida 34203**  
**(941) 752-4692**

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 that are referenced in this evaluation report.

## PRODUCT DESCRIPTION

The 0.050 aluminum storm panels are 0.050" thick 3004-H32 or 3004-H34 aluminum alloy panels. Full panels are rolled formed, having a nominal width of 12" and a total width of 14.25", forming 2" deep ribs. Half panels are rolled formed, having a nominal width of 6" and a total width of 9.00", forming 2" deep ribs. Extruded components for mounting panels are 6063-T6 aluminum alloy, unless otherwise noted on the approved drawings. Panels are overlapped to provide an unlimited width of opening perpendicular to the panel span. The 0.050" aluminum corrugated shutters in this report are not a permanently mounted shutter system.

## LIMITATIONS

**Design Drawings:** The aluminum storm panels shall be installed in accordance with the drawing entitled Cat 5 Hurricane Products, LLC, Drawing 11-100, Revision 1, sheets 1-7 of 7, dated March 28, 2011, signed and sealed by V. John Knezevich, P.E. on July 18, 2011. The design drawings will be referred to as "approved drawings" in this evaluation report. A copy of the approved drawings shall be available at the job site.

**Wall Construction:** The aluminum storm panels may be mounted to several types of wall framing construction. Refer to the approved drawings for the mounting options. The types of wall framing construction include:

- Concrete (Minimum compressive strength varies based on anchor selection);
- Hollow concrete block (ASTM C-90);
- Wood (Spruce-Pine-Fir, minimum specific gravity of 0.42).

**Anchors:** Refer to Sheets 4, 5 and 6 of the approved design drawings for the anchor options, the minimum embedment depth, and the minimum edge distance.

**Maximum Allowable Design Wind Pressure:**  $\pm 110$  psf (maximum allowable span of 6'-0" at  $\pm 110$  psf)

**Maximum Panel Span:** 10'-8" (maximum allowable pressure of  $\pm 48.2$  psf for Wind Zones 1, 2 and 3 and maximum allowable pressure of  $\pm 36.8$  psf for Wind Zone 4). Note:

Wind Zone 1:  $110 \text{ mph} \leq \text{Basic Wind Speed} < 120 \text{ mph}$

Wind Zone 2:  $120 \text{ mph} \leq \text{Basic Wind Speed} < 130 \text{ mph}$

Wind Zone 3:  $130 \text{ mph} \leq \text{Basic Wind Speed} < 140 \text{ mph}$

Wind Zone 4: Basic Wind Speed  $> 140 \text{ mph}$

**Separation Distance from Glazing:** The minimum storm panel separation from glass in Wind Zone 4 is specified in Table 2 on sheet 7 of 7.

**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 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.

**Product Identification:** The shutter assembly shall bear a label that identifies the manufacturer, the name of the shutter product, and compliance with ASTM E 330, ASTM E 1886, and ASTM E 1996 or equivalent.

## INSTALLATION INSTRUCTIONS

**General Installation Requirements:** All shutters shall be installed in accordance with the approved drawings and this product evaluation report.

**Mounting Conditions:** The shutters shall be mounted in accordance with the mounting details shown on the approved drawings. The shutter panels may be mounted vertically or horizontally using the applicable anchoring details on the approved 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.