

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

Effective November 1, 2011

SHU-198

*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 **September 2014**.*

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.

Series 200-HV-F Aluminum Fixed Hurricane Screen, manufactured by:

Tapco Incorporated
1815 McCullough Blvd.
Tupelo, MS 38801
Telephone: (800) 737-8272

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

PRODUCT DESCRIPTION

The Series 200-HV-F aluminum fixed hurricane impact screen is a permanently mounted impact protective screen that is mounted over exterior openings. The aluminum frame impact screen consists of the following components:

Frame: The aluminum frame is constructed from 6063-T5 extruded aluminum. The corners of the main frame are mitered using an aluminum corner key and two (2) No. 8 x 1" square drive sheet metal screws at each corner.

Screen: The screen is constructed with minimum 0.035" stainless steel powdered coated wire with 12 strands by 12 strands per square inch. The screen is held in place with No. 8 x 1/2" long square drive Tek screws secured to an aluminum "U" channel. The screws are located 1 1/2 inches from each corner and 3 inches on center along the perimeter of the frame.

LIMITATIONS

Design Drawings: The Series 200-HV-F aluminum hurricane impact screen shall be installed in accordance with Tapco Inc., drawing no. 08-00945, Rev A, sheets 1-4 of 4, dated February 12, 2010, revised July 25, 2011, signed and sealed by Luis R. Lomas, P.E. on September 27, 2011. The referenced drawings will be referred to as the "approved drawings" in this product evaluation report.

Product Identification: A certification program label (NAMI) will be affixed to the impact screen. The certification program label includes the manufacturer's name; product name; performance characteristics; the maximum size tested; the approved inspection agency (NAMI); and the applicable standards: ASTM E 330-02, ASTM E 1886-05, and ASTM E 1996-05.

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 E 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.

Maximum Screen Size: 108" x 51"

Screen Opening Size: The screen opening dimensions shall not exceed 102.92" x 45.92".

Allowable Design Pressure: ± 70 psf

Separation Distance from Glazed Openings: The screen shall be separated a minimum of $2\frac{1}{4}$ inches from the glazed opening at its closest point.

Wall Framing Construction: The impact screen may be secured to either concrete, hollow concrete block, wood dimension lumber (minimum Spruce-Pine-Fir) or steel substrates.

INSTALLATION INSTRUCTIONS

General Installation Requirements:

The shutter assembly shall be installed in accordance with this evaluation report and the approved drawings referenced in this product evaluation report.

Anchorage:

The shutter assembly shall be mounted to the wall framing in accordance with the mounting details on the approved drawings.

The aluminum main frame shall be secured to either a concrete, hollow concrete block, steel, or wood substrate.

Attachment to Concrete or Hollow Concrete Block Structures: Concrete shall have a minimum compressive strength of 3,192 psi. Concrete block shall have a minimum compressive strength of 1,500 psi. The aluminum main frame shall be secured to the concrete or to the concrete block substrate with minimum $\frac{3}{16}$ " diameter ITW Tapcon fasteners. The fasteners shall have a minimum embedment depth of $1\frac{1}{4}$ inches and a minimum edge distance of $1\frac{3}{4}$ inches. Refer to Sheet 3 of 4 of the approved drawings for installation details. For anchor spacing, refer to Sheet 1 of 4 of the approved drawings.

Attachment to Wood Frame Structures: The wall framing shall be minimum Spruce-Pine-Fir dimension lumber. The fasteners shall penetrate into the wall framing a minimum of $1\frac{1}{2}$ inches. The aluminum main frame shall be secured to wood framing with minimum No. 8 x 2" long wood screws. The fasteners shall have a minimum embedment depth of $1\frac{1}{2}$ inches. Refer to Sheet 2 of 4 of the approved drawings for installation details. For anchor spacing, refer to Sheet 1 of 4 of the approved drawings.

Attachment to Steel Frame Structures: The wall framing shall be minimum 16 gauge steel. The aluminum main frame shall be secured to the steel wall framing with minimum No. 8 Tek screws. The fasteners shall penetrate a minimum of 3 threads beyond the substrate. Refer to Sheet 4 of 4 of the approved drawings for installation details. For anchor spacing, refer to Sheet 1 of 4 of 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.