

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION SHU-98

Effective May 1, 2014

*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 **May 2018**.*

*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.*

**Force 12 500 Series Flexible Wind Abatement Screen System, Impact Resistant**, manufactured by

**Hendee Enterprises, Inc.**  
**9350 South Point Drive**  
**Houston, Texas 77054**  
**Telephone: (800) 231-7275**  
**www.hendee.com**

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

## PRODUCT DESCRIPTION

The Force 12 500 Series Flexible Wind Abatement Screen System is a flexible wind abatement and impact protection system using a woven polypropylene monofilament geotextile fabric with individual filaments woven into a basket weave network and calendered such that the filaments retain dimensional stability relative to each other.

The bottom of the screen is secured with steel drop-in anchors and eye bolts that are secured to a concrete slab. The top of the screen is fastened to eye bolts inserted into a C-channel that is attached to a supporting structure. The screen shall be constructed and installed as specified in the approved drawings.

The Force 12 500 Series Flexible Wind Abatement Screen System may be oriented either vertically, with the mounting hardware located at the top and the bottom, or horizontally with the mounting hardware located at the left and right ends of the screen. When the screen is mounted vertically, the screen may be angled or it may drop straight down.

**Product Identification:** Each fabric panel shall have a label that identifies the manufacturer, the name of the product, allowable design pressure, and compliance with ASTM E330-02, ASTM E 1886-05, and ASTM E 1996-09.

## LIMITATIONS

**Design Drawings:** Force 12 Flexible Wind Abatement System, Sheets 1-15 of 15, dated March 16, 2009. Each sheet is signed and sealed by James R. Bailey, P.E on June 8, 2013. The stated 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 during inspection.

**Wall Framing Construction:** The wind abatement system may be mounted to several types of wall framing construction. The types of wall framing construction allowed included concrete (minimum 3,000 psi), grout-filled CMU, hollow CMU, and wood dimension lumber (minimum Southern Pine). The screen shall be anchored to the wall substrate as specified on the approved drawings.

**Bottom Attachment Construction:** The wind abatement system shall be secured at the bottom to a concrete slab (minimum 3,000 psi). The minimum dimensions of the concrete slab shall be as specified on the approved drawings.

**Anchors:** Refer to the fastener schedules on the approved drawings for the type of anchors that may be used. The maximum allowable anchor spacing is 24" on center. The design pressure rating of the abatement system varies as function of the fastener used and the spacing of the fastener.

**Design Pressure Rating:** The minimum design pressure rating is  $\pm 40$  psf. The maximum design pressure rating is  $\pm 60$  psf. The design pressure rating varies as a function of the fasteners used, the spacing of the fasteners, and the screen height. Refer to the approved drawings for allowable design pressures.

**Maximum Screen Dimensions:** For vertical mounts, the maximum screen height is 12'-0" and the screen may extend infinitely in the horizontal direction. The screen shall have a minimum horizontal overlap of 2 feet. For horizontal mounts, the maximum screen span is 12 feet and the screen may extend infinitely in the vertical direction. The screen shall have a minimum vertical overlap of 2 feet.

**Separation Distance from Glazed Openings:** The minimum separation distance from glazed openings shall be as specified in the approved drawings.

**Impact Resistance:** This 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 wind abatement system passed Missile Level D specified in ASTM E 1886-05 and 1996-09.

**Screen Closure At Each Side of Opening:** Closure screen shall be provided at each side of the opening. Refer to the approved drawing for specific details. **EXCEPTION:** The closure screen at each side of the opening may be eliminated if the screen extends a minimum of 2 feet beyond the ends of the openings that are protected.

## INSTALLATION INSTRUCTIONS

**Installation Requirements:** The wind abatement system shall be installed in accordance with manufacturer's installation instructions, the approved drawings, and this product evaluation report.

**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.