TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION Effective Date: January 1, 2013
SHU-211

*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 **January 2016**.*

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.

Storm Shield Hurricane Barrier, Model 4 ft. x 6 ft. Side-Hinged Wire Mesh 1 x 2 (face mount) shutters manufactured by:

Exeter Architectural Products
131 Alden Road
Nanticoke, PA 18634
Telephone: (800) 972-2478

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

PRODUCT DESCRIPTION

The Storm Shield Hurricane Barrier, Model 4 ft. x 6 ft. Wire Mesh 1 x 2 side-hinged (face mount) shutters are used for windborne debris protection. The hurricane barriers are comprised of the following components:

Frame: The frame members are constructed from extruded aluminum. The frame corners are mitered, secured with one ¾" x ¾" aluminum corner key and welded. The aluminum extrusions are constructed of 6063-T5 aluminum alloy with a protective finish, unless otherwise specified on the approved drawings.

Screen: The 12 x 12 wire mesh screen is constructed of 0.035" thick, 304 stainless steel woven wire finished with a polyester powder coat. The screen is secured to the sub-frame with screws.

Configurations: The hurricane barriers are available in the following configurations:

- 4 x 6 side-hinged units (face mount), single panel
- 4 x 6 side-hinged units (face mount), double panel
- 4 x 6 side-hinged units (face mount), triple panel

General Description:

System	Unit Description	Overall Size	Panel Size	Pressure Rating (psf)
1	4 x 6 Side Hinge 1 x 2	51½" x 72"	One: 49½" x 70 3/16"	+40/-35
2	4 x 6 Side Hinge 1 x 2	103" x 72"	Two: 49½" x 70 3/16"	+40/-35
3	4 x 6 Side Hinge 1 x 2	154½" x 72"	Three: 49½" x 70 3/16"	+40/-35

Mounting Conditions: The hurricane barriers may be face mounted (secured to structure on the outside of the opening).

Maximum Span: The maximum span for mounting the hurricane barriers shall be in accordance with the overall size specified in the General Description section this evaluation report.

Minimum Separation from Glazed Opening: The hurricane barrier shall be offset from the glazed opening in accordance with the following:

- Systems 1, 2 and 3: Minimum 2 5/8 inches.

Allowable Design Pressure: The allowable design pressure for the hurricane barriers are as specified in the General Description section of this evaluation report.

LIMITATIONS

Design Drawings: The hurricane barriers shall be installed in accordance with Drawing No. TDB-1 through TDB-4, "Storm Shield Wire Mesh Hurricane Barriers," sheets 1 through 4 of 4, dated August 22, 2012, revised October 5, 2012, signed, sealed, and dated October 5, 2012 by Joseph A. Reed, PE. The stated drawings will be referred to as the approved drawings in this evaluation report.

Product Identification: An permanent label shall be applied to the hurricane barrier. The label includes the product name: Storm Shield Hurricane Barrier; the barrier model: 4' x 6' S/H Wire Mesh 1 x 2; the design pressure rating; the maximum size of an individual panel: 51½" x 72"; and the applicable test standards: ASTM E 330, ASTM E 1886, ASTM E 1996, missile level D.

Impact Resistance: These shutter assemblies satisfy 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 resisting standard equivalent to Missile Level D specified in ASTM E 1996. 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 hurricane barriers shall be installed in accordance with the manufacturer's installation instructions, the approved drawings referenced in this evaluation report, and this product evaluation report.

Wall Construction: The hurricane barriers may be mounted to the following types of wall framing:

- Grout-filled concrete masonry units (CMU), C-90, Grade N, Type 1 (or greater)
- Wood (minimum Southern Yellow Pine dimension lumber)

Anchorage:

Attachment to Grout-Filled Concrete Block Structures: Concrete block shall have a minimum compressive strength of 1,500 psi. The frame shall be secured to the grout-filled concrete block substrate with minimum ¼" x 1¾" diameter ITW Tapcon fasteners. The fasteners shall have a minimum embedment depth of 1¼ inches and a minimum edge distance of 2 inches. The fasteners shall be installed at 4" from each frame corner and a maximum 12" on center. Refer to the approved drawings for installation of the hurricane barriers.

Attachment to Wood Frame Structures: The wall framing shall be minimum Southern Yellow Pine dimension lumber. The frame shall be secured to wood framing with minimum No. 12 x 2" wood screws. The fasteners shall have a minimum embedment depth of 1⅜ inches. The fasteners shall be installed at 4" from each frame corner and a maximum 12" on center. Refer to the approved drawings for installation of the hurricane barriers.

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.