

TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
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PRODUCT EVALUATION

SHU-145

Effective Date: April 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 **March 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.

Bertha High Visibility Bahama Shutter manufactured by members of the:

American Shutter Systems Association
4268 Westroads Drive
West Palm Beach, FL 33407
(800) 432-2204

and

Eastern Metal Supply
9400 Telge Road
Houston, TX 77095
(800) 996-6061

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 specified in this evaluation report.

PRODUCT DESCRIPTION

Bahama shutters are constructed from 6063 T-6 extruded aluminum alloy. The shutter panel consists of an extruded aluminum hollow section in the jambs, an extruded hollow section with an extruded aluminum $\frac{1}{4}$ " B.O. female hinge inserted into an extruded aluminum male hinge at the head and an extruded aluminum hollow bottom rail at the sill. The jambs run from the head to the sill. Each shutter consists of 49 shutter blades. Each louver blade measures 2" x 0.375" x 0.045". The shutters are available in single unit assemblies for application to a block or concrete substrate and multiple unit assemblies for application to a wood framing substrate.

Product Identification: Each unit must bear a permanent label containing the product evaluation holder, the evaluation number and contact information for the authorized dealer-fabricator of the installed product.

Each shutter shall have a permanent label instructing the owner or tenant to secure shutter with sill brackets during periods of hurricane warnings.

LIMITATIONS

Design Drawings: The shutters shall be installed in accordance with American Shutter Systems Association Inc. drawing number 12-167, sheets 1-7 of 7, dated November 3, 2012, signed and sealed by Walter A. Tillit, Jr., P.E. on November 5, 2012. The referenced drawings will be referred to as the "approved drawings" in this product evaluation report.

LIMITATIONS (Continued)

Design pressures:

Design Wind Pressure: System	Maximum Individual Unit Width "W" (inches)	Maximum Span "L" (inches)	Design Pressure (psf)
Single Units (Masonry & Concrete)	42	97	+45, -55
Double & Triple Units (Wood)	40	70	+45, -50

Separation Distance from Glazed Openings: The shutter shall have a minimum separation from glazed openings as specified in Schedule 1 on sheet 7 of 7 of the approved drawings.

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: All shutters shall be installed in accordance with the approved drawings. For each installation, the maximum shutter span and maximum anchor spacing schedules on sheet 7 of 7 shall be followed.

Anchorage: The hinges shall be anchored to the structure in accordance with the approved drawings. For attachment to wood framing, the wood framing members shall be minimum Southern Yellow Pine (G \geq 0.55). The panels are attached to the structure with $\frac{1}{4}$ " diameter ITW Buildex Tapcon anchors with a minimum embedment depth of $1\frac{1}{2}$ " into wood framing members.

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) and the International Building Code (IBC).