TEXAS DEPARTMENT OF INSURANCE

Engineering Services / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
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PRODUCT EVALUATION Effective December 1, 2009
SHU-185

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 December 2013.

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.

Mid-Pressure and Hi-Pressure Blades Extruded Aluminum Accordion Shutters manufactured by:

B&C Metals Enterprise
8315 NW 74 Street
Miami, Florida 33166
Telephone: (305) 406-0944

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

PRODUCT DESCRIPTION

The extruded aluminum accordion shutters are manufactured from 6063-T5 aluminum alloy. The accordion shutters are designed as a permanently mounted impact protective system. The extruded aluminum slats measure 4.913" in width. The mid-pressure blade has a wall thickness of 0.051", and the high pressure blade has a wall thickness of 0.062".

Mounting Conditions: The shutters may be wall mounted, ceiling and floor mounted, build-out, or any combination thereof. Refer to the approved drawings for the mounting conditions.

Wall Construction: The head and sill tracks may be mounted to concrete, grout-filled concrete masonry units (CMU), or wood. Concrete shall be minimum 3,000 psi. CMU shall be minimum 1,500 psi. Wood shall be minimum Southern Yellow Pine dimension lumber.

Product Identification: The accordion shutters shall have a label that identifies the product manufacturer, the name of the product, and either compliance with ASTM E-330, ASTM E 1886, and ASTM E 1996 or compliance with TAS-201, TAS-202, and TAS-203.

LIMITATIONS

Design Drawings: The accordion shutters shall be installed in accordance with Drawing No. 09-151, titled "B&C Metals Enterprise Mid-Pressure and Hi-Pressure Blades Accordion System" sheets 1 through 15 of 15, dated August 14, 2009, signed and sealed by Walter A. Tillit, Jr., P.E. on August 18, 2009. The stated drawings will be referred to as the approved drawings in this evaluation report.

Allowable Design Pressure: The allowable design pressure varies based on the slat span, fasteners used, wall construction, and the mounting condition. The maximum allowable design pressure shall not exceed ±195 psf. Refer to the approved drawings for allowable design pressures.

Minimum Separation From Glass: The minimum separation from the glass shall be 1".

Maximum Allowable Slat Span: The maximum slat span for the mid-pressure blade is 14'-11"' , and the maximum slat span for the hi-pressure blade is 16'-0", both at a design pressure of 40 psf.

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 the equivalent of 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.

INSTALLATION INSTRUCTIONS

General Installation Requirements:
The shutters shall be installed in accordance with the approved drawings, signed and sealed by Walter A. Tillit, Jr., P.E. on August 18, 2009.

During a high wind event, the shutters shall be locked and in the closed position.

Anchorage:
The shutters shall be mounted in accordance with the mounting details on the approved drawings. Refer to the anchor schedules and notes in the approved drawings to verify proper fastener embedment and spacing for each type of fastener.

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.