

Product Evaluation

SHU137 | 1120

Engineering Services Program

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 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.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: SHU-137

Effective Date: November 1, 2020

Re-evaluation Date: November 2024

Product Name: Extruded Aluminum Accordion Shutters, Impact Resistant

Manufacturer: Croci North America
11600 Adelmo Lane
Fort Myers, FL 33966
(239) 278-3066

General Description:

The accordion shutters are manufactured from extruded aluminum. The accordion shutters are assembled using interlocking extruded aluminum accordion blades. The components of the accordion shutter system are as follows:

Accordion blades: Manufactured from extruded aluminum, 6063-T6 aluminum alloy; thickness of 0.054"; overall length of 4.58".

Wall mount tracks: Manufactured from 6063-T6 aluminum alloy; thickness range of 0.09" to 0.14"; depth range 2.56" to 2.60"; and widths of 3.12", 4.12", and 5.12".

Ceiling track: Manufactured from 6063-T6 aluminum alloy; thickness of 0.110"; depth of 1.960"; and width of 3.12".

Built-out angles: Manufactured from 6063-T6 aluminum alloy; thickness of 0.13"; 2.0" wall mounting leg; 2", 3", 4", or 5" ceiling track mounting leg.

Male lock stile: Manufactured from 6063-T6 aluminum alloy; thickness of 0.06"; depth of 2.13"; and width of 2.26".

Female lock stile: Manufactured from 6063-T6 aluminum alloy; thickness of 0.06"; depth of 2.13"; and width of 2.22".

Adjustable sill track: Manufactured from 6063-T6 aluminum alloy; thickness of 0.070"; depth of 1.38; and width of 3.12".

Adjustable sill channel: Manufactured from 6063-T6 aluminum alloy; thickness range of 0.070" to 0.090"; depth of 1.30"; and width range of 2.81" to 2.83".

Limitations:

Design Drawings: "Extruded Aluminum Accordion Shutter," Drawing No. 19-072, sheets 1 through 9 of 9, dated October 15, 2020, and signed and sealed by Pedro Figueiredo, P.E. on October 15, 2020. 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

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

- Pre-cast concrete, cast-in-place concrete (minimum compressive strength required specified in drawings)
- Hollow or grout-filled concrete masonry units (CMU); (minimum compressive strength required specified in drawings)
- Wood (minimum Douglas Fir-Larch dimension lumber,
- Steel (minimum A36, 1/8" thickness)
- Aluminum (minimum 6063-T6, 1/4" thickness)

Mounting Configurations: The shutters may be mounted directly to the wall system, built out from the wall system, or inset from the wall system. Refer to the approved drawings for illustrations of allowable mounting configurations.

Design Pressure Rating: The design pressure rating for the accordion shutters is varies as a function of blade span, mounting condition, anchor spacing, and anchor type. Refer to the approved drawings to determine the appropriate allowable design pressure rating. The maximum allowable design pressure is +/-188 psf.

Shutter Width: There is no limitation on the shutter width.

Maximum Blade Spans: The maximum allowable vertical blade spans for a given design pressure are specified in Table 1 of the approved drawings. The maximum allowable blade span is 150".

Minimum Separation from Glass: The minimum glazing separation requirements are specified in the approved drawings.

Product Identification: The shutter assemblies have a manufacturer-produced label that indicates the manufacturer (Croc North America); the name of the product (Croc Extruded Aluminum Accordion Shutter); The TDI Evaluation Report number (SHU-137); the missile level (Missile Level D); the design pressure and installation are in accordance with Drawing 19-072; and the test standards: ASTM E 330-02, ASTM E 1886-04, and ASTM E 1996-04.

Impact Resistance: This shutter assembly satisfies the TDI criteria for protection from windborne. The assembly may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded.

Installation:

General Installation Requirements: The shutters must be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this product evaluation report. Copies of the approved drawings must be available on the jobsite during inspection of the shutter assembly.

Anchorage: The shutters must be anchored to the structure in accordance with the approved drawings.

Note: Keep the manufacturer's installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.