TDI | Texas Department of Insurance

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Product Evaluation

SHU173 | 0521 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-173

Effective Date: May 1, 2021
Re-evaluation Date: May 2025

Product Name: Eyewall Armor (EA) 0.050 Solid Aluminum Corrugated Storm Panels and Polycarbonate Storm Panels

Manufacturer: Town & Country Industries
400 West McNab Road
Fort Lauderdale, FL 33309
(561) 512-9702

General Description:
The 0.050 solid aluminum storm panels are 0.050" thick 5052-H32 or 3004-H34 aluminum alloy panels. Full panels are roll-formed, having a nominal width of 12" and a total width of 14.375", forming 2" deep ribs. Half panels are roll-formed, having a nominal width of 6" and a total width of 8.332", forming 2" deep ribs.

Polycarbonate storm panels may be alternated with aluminum storm panels. Polycarbonate panels are 0.100" thick with a nominal coverage of 12" per panel. The total width of the panel is 15-1/4".

Components for mounting the panels are 6063-T6 aluminum alloy, unless otherwise noted on the approved drawings. Panels are overlapped to provide an unlimited width of opening

perpendicular to the panel span. The corrugated panels specified in this evaluation report are not a permanently mounted shutter system.

Limitations:
Design Drawings:
'0.050" Storm Panels;' Town and Country Industries; Drawing No. 20-24244.2; Sheets 1-10 of 10; dated June 03, 2011; revised June 17, 2020; signed, sealed, and dated April 1, 2021 by Frank L. Bennardo, P.E. The stated drawings will be referred to as approved drawings in this report.

Mounting Conditions: Refer to the approved drawings for specific mounting conditions.

Minimum Separation from Glass: The shutter system is a non-porous impact protective system. There is no minimum separation of glazing. The shutters may not be installed on essential facilities as defined in the IBC.

Product Identification: The storm panels have a permanent label that identifies the manufacturer (Town & Country Industries); the name of the product (0.050" Aluminum Storm Panels); the missile Level (Missile Level D); the test standards (ASTM E 330, ASTM E 1886, and ASTM E 1996); and the TDI evaluation report number (SHU-173).

Compliance: The shutters comply with ASTM E 330-14, ASTM E 1886-13a, and ASTM E 1996-14a.

Impact Resistance: This shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris. The assembly passed Missile Level D as specified in ASTM E 1996-14a. The assembly may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded. The shutters may not be installed on essential facilities as defined in the IBC.

Allowable Design Pressure:
Aluminum Panels Only: The maximum design pressure is +/-120 psf. Refer to the approved drawings for specific design pressures.

Alternating Aluminum and Polycarbonate Panels: The allowable design pressure is +55 / -58 psf

Maximum Span:
Aluminum Panels Only: The maximum span is 144". Refer to the approved drawings for specific span limitations.
Alternating Aluminum and Polycarbonate Panels: The maximum panel span is 104".

Maximum Width: The width of the assembly is not limited.

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

- Pre-cast concrete, cast-in-place concrete (minimum compressive strength required specified in drawings)
- Grout-filled concrete masonry units (CMU)
- Hollow concrete masonry units (CMU.
- Wood (minimum Spruce-Pine-Fir dimension lumber, S.G. = 0.42).

Installation:

General Installation Requirements: The storm panels 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 storm panels must be anchored to the structure in accordance with the approved drawings. Anchorage of the storm panels to concrete, grout-filled and hollow block concrete masonry units (CMU), and wood wall framing must follow the mounting conditions and fastener options specified on the approved drawings and the wall construction requirements in this evaluation report.

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