

Product Evaluation

SHU140 | 0922

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-140

Effective Date: September 1, 2022

Re-evaluation Date: September 2026

Product Name: Fabric-Shield™ Wide-Weld Fabric Storm Panels, Impact Resistant

Manufacturer: Wayne-Dalton Corp.
3395 Addison Drive
Pensacola, FL 32514
(850) 474-9890

General Description:

The Fabric-Shield™ fabric storm panels are a windborne debris protective system. The windborne debris protective system consists of a translucent fabric storm panel system that is secured to the exterior perimeter of a window or door with fasteners. The fabric storm panel system consists of the following components:

Fabric: A 0.037" thick PVC coated woven polyester fabric. Two of the panel edges are reinforced with two extra plies of PVC coated polyester fabrics that are minimum 2.125" wide. The reinforcements are welded to the fabric forming a 0.111" thick edge.

Grommets: Nickel plated grommets and toothed grommet washer; 1/2" hole size, 1.05" flange diameter, 0.018" thick; trade size #4 (GR4/N). The grommets are installed along the reinforced edges of the fabric. The spacing of the grommets is specified on the approved drawings.

Angles and Tracks: Manufactured from 6063-T6 extruded aluminum. The dimensions are specified on the approved design drawings.

Limitations:

Design Drawings:

"Fabric Shield Wide-Weld Fabric Storm Panels;" manufactured by Wayne Dalton; Drawing No. 22-51543; Sheets 1-4; dated December 10, 2009; Revised May 5, 2022, signed, sealed, and dated June 1, 2022, 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.

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)
- Hollow concrete masonry units (ASTM C-90)
- Wood (minimum Spruce-Pine-Fir dimension lumber, minimum S.G. = 0.42).

Allowable Design Pressure: The allowable design pressure is a function of mounting condition, panel span, and minimum flap reinforcement length. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is +/-128.0 psf.

Maximum Shutter Span: The panel span is the maximum distance between rows of fasteners. The fabric storm panel may be installed horizontally or vertically. The maximum allowable shutter span is a function of blade type, design pressure, mounting conditions, and installation method. Refer to the span schedules in the approved drawings for allowable shutter spans for specific configurations.

Panel Length: The panel length is the dimension parallel to the rows of fasteners. The allowable shutter length (denoted as width on the design drawing) is unlimited. The minimum shutter width is 9-1/4".

Grommets (Fabric End and Edge Distance): The grommets are spaced a minimum of 1-7/16" from the ends of the fabric. The grommets are located a minimum of 1-3/8" from the edge of the fabric.

Fabric Overlaps: For large openings, it is permitted to overlap the ends of the fabric. Refer to the approved drawings for the minimum overlap length.

Minimum Separation from Glass: The shutter system is a non-porous impact protective system. For basic protection, there is no minimum separation of glazing. For essential facilities follow the guidelines for glass separation and use as specified in the approved drawings.

Product Identification: The shutter assembly has a permanent label that indicates the manufacturer (Wayne Dalton); the name of the product (Fabric Shield Storm Panels); the test standards: ASTM E 330-14; ASTM E 1886-13a, and ASTM E 1996-14a; and the missile level (Missile Level D).

Impact Resistance: This shutter assembly has been tested for windborne debris resistance. The assembly passed Missile Level D 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. For essential facilities located in Wind Zone 2, the shutters may be installed at any height above ground level. For essential facilities located in Wind Zone 3, the shutters must be installed at heights greater than 30 feet above ground level.

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.

Installation: Refer to the span tables, anchor schedules, and anchor notes on the approved design drawings for the installation of the shutter assembly. Anchor schedules indicate the minimum embedment depth, the minimum edge distance, and the maximum anchor spacing for various anchor types and design pressures.

Storage: The fabric storm panels are designed to be removed when not in use (unless designed otherwise as noted on the design drawings). After the initial installation of the system, the assembly should be removed and stowed away. It is recommended that the fabric storm panels be marked or labeled in some manner to identify the proper window or door they will cover on the structure.

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.