

Product Evaluation

SHU112 | 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-112

Effective Date: September 1, 2022

Re-evaluation Date: September 2026

Product Name: Fabric-Shield™ Pull-Down Shutters, Impact Resistant

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

General Description:

The Fabric-Shield™ pull-down shutters are a windborne debris protective system. The windborne debris protective system consists of a pull-down fabric shutter system that is secured to the exterior perimeter of a window or door with fasteners. The fabric shutter system consists of the following components:

Fabric: Nominal 0.040" thick PVC coated woven polyester fabric (1350 Denier ultra-high molecular weight polyethylene; 0.018-0.019" diameter). A curtain edge strip is stitched (3X) to the vertical edge of the fabric (0.06" thickness). The top of the fabric is attached to the curtain rod assembly using acrylic adhesive transfer tape. The bottom of the curtain is formed by attaching a curtain edge strip at 1" from the end and stitched (3X) to the fabric bar (0.06" thickness). Refer to the approved drawings for additional details.

Side Guide, Curtain Bar, Angle Mount, and Support Tube: Manufactured from 6063-T5 extruded aluminum. The dimensions are specified on the approved design drawings.

Limitations:

Design Drawings:

"Fabric Shield Pull-Down Shutter;" manufactured by Wayne Dalton; Drawing No. 22-51549; Sheets 1-7; dated May 23, 2013; revised June 3, 2022; signed, sealed, and dated June 3, 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 fabric shutter 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 (ASTM C-90)
- Wood (minimum Southern Yellow Pine dimension lumber, minimum S.G. = 0.55).

Allowable Design Pressure: The allowable design pressure is a function of mounting condition, substrate type, track to track span, and anchor type. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is +/-66.0 psf.

Maximum Track to Track Span: The track-to-track span is equivalent to the fabric span. The maximum track to track span is 81". Refer to the approved drawings for track-to-track spans.

Maximum Shutter Height: The maximum shutter height is 98".

Minimum Separation from Glass: The shutter system is a non-porous impact protective system. For basic protection, there is no minimum separation of glazing. The shutter system is not to be used on essential facilities.

Product Identification: The pull-down shutters have a permanent label that indicates the manufacturer (Wayne Dalton); the name of the product (Fabric-Shield Pull-Down Shutter); the test standards (ASTM E 330-14; ASTM E 1886-13a, ASTM E 1996-14a); and the missile level (Missile Level D).

Impact Resistance: The pull-down shutters have 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. The product is not to be installed on essential facilities.

Installation:

General Installation Requirements: The fabric pull-down 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.

Intended Use: The shutter assembly is permanently secured to the structure. The fabric pull-down shutters are designed to be rolled up when not in use.

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.