

Product Evaluation

SHU247 | 1122

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-247

Effective Date: November 1, 2022

Re-evaluation Date: November 2026

Product Name: Magnatrack Hurricane System Fabric Roll Shutters, Impact Resistant

Manufacturer: Progressive Screens
7838 Fruitville Rd
Sarasota, FL 34240
(941) 360-0037

General Description:

The Magnatrack Hurricane System Fabric Roll 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 of the structure with anchors. The fabric shutter system consists of the following components:

Fabric: A woven screen fabric using 0.027" diameter vinyl coated 1500 Denier polyester yarns in the wrap direction and 0.030" vinyl coated 2000D Aramid yarns or UHMWPP yarns in the fill direction. Refer to the approved drawing for additional details.

Keder: The Keder is 4mm (at tracks) and 5mm (at weight bar). PVC cord is provided by Keder solutions with a tensile strength of 2,100 psi, wrapped and welded with a double flap Keder using standard weave fabric (white or black) provided by Keder Solutions, with a 64mm width (at tracks) and 74mm width (at weight). Refer to the approved drawing for additional details

Track Housing, Screen Track, Weight Bar, Retainer Clip, Wall Mount and Buildout Track, Inset Track and Mullion Tubes: Manufactured from 6063-T6 extruded aluminum unless otherwise noted on the approved drawing. The dimensions are specified on the approved drawing.

Limitations:

Design Drawings:

"Magnatrack Hurricane System Fabric Roll Shutter Large Missile Rated;" manufactured by Progressive Screens; Drawing No. PRG004; Sheets 1 thru 29; dated January 3, 2022; signed, sealed, and dated October 10, 2022, by Hermes F. Norero, 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 3,000 psi compressive strength)
- Grout-filled concrete masonry units (ASTM C-90, minimum 2,000 psi compressive strength)
- Wood (minimum Southern Yellow Pine dimension lumber, minimum S.G. = 0.55)
- Steel, minimum A36, 3/16" thickness
- Aluminum, minimum 6063-T6, 1/4" thickness

Allowable Design Pressure: The allowable design pressure is a function of mounting condition, substrate type, track to track span, anchor type, mullion type, and mullion span. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is +/-200.0 psf.

Maximum Frame Width: The maximum frame width is 360". Refer to the approved drawings for allowable frame widths.

Maximum Overall Height: The maximum overall height (which includes the hood) is 24'-0".

Minimum Separation from Glass: The shutter system is a non-porous impact protective system. For basic protection, there is no minimum separation of glass. For essential facilities, separation from glass requirements are specified on the approved drawing.

Product Identification: The fabric shutters have a permanent label, a NAMI Quality Assurance Label, that indicates the manufacturer (Progressive Screens); the name of the product (Magnatrack Hurricane System Fabric Roll Shutter); the test standards (TAS 201/202/203-94); and the missile level (Large Missile Impact Rated).

Compliance: The products comply with ASTM E 1886-13a and ASTM E 1996-14a as referenced in the 2018 IRC and 2018 IBC.

Impact Resistance: The fabric roll shutters have been tested for windborne debris resistance. The assembly passed the equivalent of 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, the assembly may not be installed below a height of 30 feet in Wind Zone 3 and may be installed at all heights in Wind Zone 2 as defined in ASTM E 1996-14a.

Installation:

General Installation Requirements: The fabric roll 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 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 roll 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.