

Product Evaluation

SHU238 | 0821

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-238

Effective date: August 1, 2021

Re-evaluation date: August 2025

Product name: GreenTek Hybrid Roll-up Shutter System

Manufacturer: Ultratek Worldwide
3801 N. Washington Blvd.
Sarasota, FL 34234
(941) 351-6700

General Description:

The roll-up shutters are a permanently mounted impact protective system. The system is comprised of hybrid slats, manufactured from extruded aluminum with a PVC cover. The slats roll up into a shutter housing located at the top of the system.

Design Drawings:

"GreenTek Hybrid Roll-Up Shutter System;" manufactured by Ultratek Worldwide; Drawing No. 21-14; Sheets 1–11 of 11, dated March 4, 2021; drawing signed, sealed, and dated July 13, 2021, by John H. Kampmann Jr, P.E. The stated drawings will be referred to as approved drawings in this report.

Limitations:

Configurations:

- Multiple Units with Intermediate Mullion
- Single Units

Mounting Conditions:

- Wall Mount
- Direct Mount
- Built-out Wall Mount
- Built-out Trapped Mount

Wall Construction: The roll-up 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)
- Grout-filled concrete masonry units (CMU)
- Hollow concrete masonry units (CMU)
- Wood (refer to specific gravity on drawings).
- Aluminum (minimum 1/8" thick; 6063-T6)
- Steel (minimum 1/8"; A36)

Allowable Design Pressure: The allowable design pressure is a function of slat span and mounting condition, and anchorage method used. The maximum allowable design pressure is +/-120.0 psf. Refer to the approved drawings for the allowable design pressure for a specific installation condition.

Maximum Slat Span: The maximum allowable slat span is 288". Refer to the approved drawings for allowable slat spans for specific configurations.

Maximum Shutter Height: The maximum allowable shutter height is 30'-0".

Mullions: The required mullion size, allowable mullion height, maximum slat span, and allowable design pressure are specified in the approved drawings.

Minimum Separation from Glass: The minimum glass separation as a function of span is specified on the approved drawings. The shutter assembly is considered a non-porous impact protective system. No minimum separation from glass is required unless installed on essential facilities. The shutters may not be installed below 30 feet on essential facilities as defined in ASTM E 1996-14a.

Product Identification: The roll-up shutter assemblies must have a manufacturer-produced permanent label that indicates the manufacturer (Ultratek Worldwide); the name of the product (Greentek Rolling Shutter); the test standards and missile level (ASTM E 330, ASTM E 1886, and ASTM E 1996, Missile Level D; TAS 201, TAS 202, TAS 203, Large & Small Missile).

Compliance: The shutter assemblies passed test criteria equivalent to 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 a missile level equivalent to 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 shutters may not be installed on essential facilities as defined in the IBC.

Installation:

General Installation Requirements: The roll-up 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 roll-up shutters must be anchored to the structure in accordance with the approved drawings.

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