



Product Evaluation

SHU229 | 1117

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-229

Effective Date: November 1, 2017

Re-evaluation Date: November 2021

Product Name: Polycarbonate Storm Panel

Manufacturer: Resolite
A Division of Stabilit America Inc.
285 Industrial Drive
Moscow, TN 38057
(901) 877-1288

General Description:

Polycarbonate panels. The panels are Makrolon multi UV 3X/16-25 triple wall polycarbonate sheets with an X-structure for enhanced stiffness. The panel has an overall thickness of 16mm (0.625"). The panels are produced with a coextruded UV-protective layer, which is homogeneously fused with the sheet material. The panels are used as shutters to protect exterior openings.

Limitations:

Design Drawing:

- "Polycarbonate Storm Panel" manufactured by Resolite, A Division of Stabilit America, Drawing No. RES003, Sheets 1-4 of 4, dated October 26, 2016, signed, sealed, and dated February 15, 2017 by Hermes F. Norero, P.E. The stated drawings will be referred to as approved drawings in this report.

Wall Construction: The polycarbonate 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 or hollow block concrete masonry units (CMU)
- Wood (minimum Spruce-Pine-Fir dimension lumber).

Mounting Conditions: The polycarbonate storm panels must be face mounted to the wall. Refer to the approved drawings for the specific mounting condition.

Allowable Design Pressure: The maximum design pressure rating is +60 / -70 psf. Refer to the approved drawings for specific design pressure requirements.

Maximum Width: The maximum allowable width is 75". Refer to the approved drawing for specific dimensions. Note: the height and width dimensions can be interchanged.

Maximum Height: The maximum allowable height is 96". Refer to the approved drawing for specific dimensions. Note: the height and width dimensions can be interchanged.

Minimum Separation from Glass: There is no minimum glazing separation. The product may not be installed on an essential facility as defined in ASCE 7.

Product Identification: The polycarbonate storm panels must have a manufacturer-produced label that indicates the name of the manufacturer; the name of the product; the applicable test standards: ASTM E 330-02, ASTM E1886-05, E1996-05/09, Missile Level D, and the drawing number, RES003.

Impact Resistance: This polycarbonate storm panels satisfies the Texas Department of Insurance's criteria for protection from windborne debris in both the **Inland I zone** and the **Seaward zone**. The assembly passed a missile level equivalent to Missile Level D specified in ASTM E 1996. The assembly may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded.

Installation:

General Installation Requirements: The polycarbonate storm panels must be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this product evaluation report. A copy of the approved drawing must be available on the jobsite during inspection of the shutter assembly.

Anchorage: The polycarbonate storm panels must be anchored to the structure in accordance with the approved drawings. Anchorage of the panels to concrete, grout-filled concrete masonry units (CMU), hollow CMU, and wood wall framing must follow the mounting conditions and fastener options specified on the approved drawing referenced 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, the IBC, and the Texas Revisions.