

## Product Evaluation

SHU229 | 0422

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:** May 1, 2022

**Re-evaluation Date:** May 2026

**Product Name:** Polycarbonate Storm Panels

**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 (Impact)" manufactured by Resolite, A Division of Stabilit America; Drawing No. RES003, Sheets 1-4 of 4, dated October 26, 2016, signed, sealed, and dated January 25, 2022, 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 ((minimum compressive strength required specified in drawings)
- Wood (minimum Spruce-Pine-Fir dimension lumber; S.G.=0.42).

**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 and ASTM E 1996-14a.

**Product Identification:** The polycarbonate storm panels must have a manufacturer-produced permanent label that indicates the name of the manufacturer (Resolite); the name of the product (Resolite Polycarbonate Storm Panel); the applicable test standards: ASTM E330-14, ASTM E1886-13a, ASTM E1996-14a; the missile level (Missile Level D); and the drawing number (RES003).

**Impact Resistance:** The assembly satisfies TDI's criteria for protection from windborne debris. The assembly passed the equivalent of Missile Level D specified in ASTM E1996-14a. Install the assembly at any height on the structure that does not exceed the assembly's design pressure rating. The assembly may not be installed on essential facilities.

#### **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. Edge distance and embedment requirements for fasteners are specified on the approved drawings.

**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.