

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION

SHU-205

Effective June 1, 2012

*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 shall be subject to reevaluation **June 2016**.*

*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.*

**Weather Guard and Weather Guard II Aluminum Security/Storm Panel** manufactured by:

**C. K. Screens, Inc.**  
**310 West Reading Way**  
**Winter Park, FL 32789**  
**Telephone: (407) 947-0311**

will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation report and with the design drawings that are referenced in this evaluation report.

## PRODUCT DESCRIPTION

The C.K. Screens "Weather-Guard" and "Weather-Guard II" Security/Storm Panel are permanently attached, impact protective systems that are mounted over window assemblies. The frames of the systems are constructed from 6063 T-6 extruded aluminum alloy. The screen material for the "Weather-Guard" is perforated stainless steel (304). The screen material for the "Weather-Guard II" is stainless steel (304) screen mesh (.028" diameter, 12 strands per inch).

## LIMITATIONS

**Design Drawings:** The storm panels shall be installed in accordance with Drawing No. TX-4126, dated Feb. 23, 2011, sheets 1 - 12 of 12 or Drawing No. TX-4127, dated Feb. 23, 2011, sheets 1 - 11 of 11, both signed and sealed by Lyndon F. Schmidt, P.E. on May 8, 2012. The referenced drawings will be referred to as the "approved drawings" in this product evaluation report.

**Product Identification:** A label will be affixed to the impact storm panels. The label includes the manufacturer's name, the product name (Weather-Guard), the maximum size of the product, the design pressure rating for the product, and the applicable standards: ASTM E 1886, ASTM E 1996, and ASTM E 330.

**Impact Resistance:** This shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris in both the **Inland I zone** and the **Seaward zone**. The shutter assemblies passed an impact-resisting standard equivalent to Missile Level D specified in ASTM E 1996-05. The shutter assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.

### LIMITATIONS

System	Orientation	Maximum Overall Panel Width (in.)	Maximum Overall Panel Height (in.)	Design Pressure (psf.) <sup>1</sup>
Weather-Guard (single)	Vertical	63	148	+62, -70
Weather-Guard (single)	Horizontal	148	63	±62
Weather-Guard (multiple) <sup>2</sup>	Vertical	Unlimited	148	+62, -70
Weather-Guard (multiple) <sup>2</sup>	Horizontal	Unlimited	63	±62
Weather-Guard II (single)	Vertical	51	148	+57.3, -77.5
Weather-Guard II (multiple) <sup>3</sup>	Vertical	Unlimited	148	+57.3, -77.5

**Notes:** <sup>1</sup> Shutters must be in a closed and locked position to achieve allowable design pressure rating.

<sup>2</sup> The dimension of the individual screen units for the multiple assembly shall not exceed 63" x 148" (vertically) or 148" x 63" (horizontally).

<sup>3</sup> The dimension of the individual screen units for the multiple assembly shall not exceed 51" x 148".

**Separation Distance from Glazed Openings:** The screen shall be separated as specified on each approved drawing from the glazed opening at its closest point.

**Wall Construction:** The storm panels may be mounted to the following types of wall framing:

- Pre-cast concrete, cast-in-place concrete (minimum compressive strength 3,192 psi)
- Hollow masonry units (CMU), C-90
- Wood (minimum Spruce-Pine-Fir dimension lumber)

### INSTALLATION INSTRUCTIONS

**General Installation Requirements:** The storm panels shall be installed in accordance with this evaluation report and the approved drawings referenced in this product evaluation report.

**Anchorage:** The storm panels shall be mounted to the wall framing in accordance with the mounting details on the approved drawings.

**Attachment to Wood Frame Substrates:** The wall framing shall be minimum Spruce-Pine-Fir dimension lumber. The aluminum frame shall be secured to wood framing with minimum No. 12 sheet metal screws. The fasteners shall have a minimum embedment depth of 1 3/4" inches. The fasteners shall have a minimum edge distance of 3/4" inches. Refer to the approved drawings for mounting and anchorage details.

**Attachment to Concrete or Hollow Concrete Block Structures:** Concrete shall have a minimum compressive strength of 3,192 psi. Concrete block shall have a minimum compressive strength of 1,500 psi. The aluminum frame shall be secured to the concrete or to the concrete block substrate with minimum  $\frac{1}{4}$ " diameter concrete fasteners. The fasteners shall have a minimum embedment depth of  $1\frac{1}{4}$  inches. The fasteners shall have a minimum edge distance of  $2\frac{1}{2}$  inches. Refer to the approved drawings for mounting and anchorage details.

**Note:** The manufacturer's installation instructions and the approved drawings shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.