

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION CWSF-15

Effective August 1, 2011

*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 **October 2013**.*

*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.*

**102 Degree Corner Wood Curtain Wall, Impact Resistant**, manufactured by

**Solar Innovations**  
**31 Roberts Road**  
**Pine Grove, Pennsylvania 17963**  
**Telephone: (570) 915-1500**

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions, this product evaluation report, and the design drawings referenced in this evaluation report.

## PRODUCT DESCRIPTION

The 102 Degree Corner Wood Curtain Wall is a wood fixed window assembly. The wood fixed window assembly evaluated in this report is an impact resistant window assembly. This evaluation report is for a wood fixed window assembly based on the following tested construction:

### General Description:

System	Description	Label Rating
1	102 Degree Corner Wood Curtain Wall	AAMA 501-05 Design Pressure: +50/-50 psf ASTM E 1886-02/05; ASTM E 1996-02/05 Missile Level D Maximum Size Tested: 10'10" x 10'7"

### Product Dimensions:

System	Overall Size	Fixed Daylight Opening Size
1	130" x 127 $\frac{1}{4}$ "	58 $\frac{3}{4}$ " x 118 $\frac{3}{4}$ "

**Glazing Description:**

System	Glass Construction <sup>1</sup>	Glazing Method <sup>2</sup>
1	IG-1	GM-1

Note: <sup>1</sup> See the "Glass Construction Key" for the glazing construction.

<sup>2</sup> See the "Glazing Method Key" for the glazing method description.

**Glass Construction Key:**

IG-1: The fixed windows contain a sealed insulating glass unit. The sealed insulating glass unit is comprised of a 1/4" fully tempered glass lite and a laminated glass unit separated by a desiccant-filled aluminum spacer system. The laminated glass unit is comprised of two 1/4" heat strengthened glass lites with a 0.100" Solutia HP interlayer. The glass thickness used in the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

**Glazing Method Key:**

GM-1: The insulating glass units are exterior glazed with structural silicone and a gasket backbedding, an exterior perimeter glazing gasket, and a screwed in place extruded aluminum pressure plate.

**Frame Construction:** The frame rafters consist of Douglas Fir wood members. The horizontal and intermediate members are extruded aluminum. An extruded aluminum frame / glazing adaptor is secured to the rafters with screws. An extruded aluminum "hurricane glazing adaptor" is slide fit at the frame / glazing adaptors. An extruded aluminum purlin is utilized at the head and the sill and is fastened to the rafters with screws and a metal mounting bracket. The sill is secured to an extruded aluminum angle clip with screws.

**Hardware:** N/A

**Reinforcement:** None.

**Product Identification:** A certification program label (NAMI) will be affixed to the window. The certification program label shall include the manufacturer's name; the product name: **102° Corner Wood Curtain Wall Assembly**; performance characteristics; the approved inspection agency (NAMI); and the applicable standards: AAMA 501-05 and ASTM E 1886-02/05 and ASTM E 1996-02/05.

**LIMITATIONS**

**Design pressures:**

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	130	127 1/4	±50

**Impact Resistance:** These window assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the **Inland I** and the **Seaward zone**. The window assemblies passed Missile Level D specified in ASTM E 1996-02/05. The window assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded. These window assemblies will not need to be protected with an impact protective system.

**Acceptance of Smaller Assemblies:** Windows assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

## INSTALLATION INSTRUCTIONS

**General:** The window assembly shall be installed in accordance with the manufacturer's installation instructions and this product evaluation. Detailed drawings and installation instructions are available from the manufacturer.

**Design Drawings:** The windows shall be installed in accordance with Drawing No. 08-01077, titled "Wood Curtain Wall - 102° - Impact, sheets 1 through 9 of 9, dated August 06, 2010, signed and sealed by Luis R. Lomas., P.E. The stated drawings will be referred to as the approved drawings in this evaluation report.

**Wall Framing Construction:** The windows may be mounted to several types of wall framing construction. The types of wall framing construction allowed include:

- Concrete (minimum compressive strength: 2,000 psi)
- Wood dimension lumber (minimum Spruce-Pine-Fir)

**Installation:**

- Refer to Sheets 2 of 9 thru 7 of 9 of the approved drawings for installation details.
- The approved drawings indicate the minimum embedment depths for the fasteners and the minimum edge distances (minimum distance fastener must be from the edge of the substrate material) for the fasteners.

**Note:** The manufacturer's installation instructions 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.