

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION WIN-1512

Effective January 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 **March 2015**.

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.

**Series 700 Vinyl Single Hung Windows, Impact Resistant**, manufactured by

**Four Seasons Solar Products LLC**  
**5005 Veterans Memorial Highway**  
**Holbrook, New York 11741**  
**Telephone: (631) 563-4000**

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

## PRODUCT DESCRIPTION

The Series 700 single hung windows are vinyl single hung windows. The vinyl single hung windows evaluated in this report are individual, impact resistant, windows. This product evaluation report is for vinyl single hung windows based on the following tested constructions:

### General Description:

System	Description	Label Rating
1	Series 700 Vinyl Single Hung Window; (O/X)	H-LC60 54 x 76

### Product Dimensions:

System	Overall Size	Sash Size	Fixed Daylight Opening Size
1	54" x 76"	51" x 37"	47 1/4" x 34"

### 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: Each window sash contains a sealed insulating glass unit. The sealed insulating glass unit in the tested assembly is comprised of a double strength ( $\frac{1}{8}$ " ) fully tempered glass lite separated by an aluminum box spacer system. The laminated glass unit is comprised of two double strength ( $\frac{1}{8}$ " ) annealed glass lites with a 0.090" DuPont SGP interlayer. The glass thickness used in the insulating glass unit of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

**Glazing Method Key:**

GM-1: The insulating glass unit is dry glazed using Weiss adhesive Cosmofen VKD 874 and utilized a glazing spline. The insulating glass unit is secured in place with a glazing stop.

**Frame Construction:** The frame members are manufactured from extruded vinyl (PVC). The frame corners are mitered and welded construction. A sill riser is utilized.

**Sash Construction:** The sash members are manufactured from extruded vinyl (PVC). The sash corners are mitered and welded construction.

**Hardware:**

- Truth locks; Three (3) required; Located on the meeting rail.
- Latch assembly and latch hooks; Two (2) required; Located at each end of the meeting rail.
- Constant force balance system; Two (2) required; Located in each side jamb.

**Reinforcement:** Roll formed steel reinforcement is utilized in the sill, the side jambs, the head, the sash bottom rail, the sash meeting rail, the sash stiles, and the fixed meeting rail. Extruded aluminum reinforcement is utilized in the active sash bottom rail, and the sash stiles. The reinforcement extends the length of the members.

**Product Identification:** A certification program label (NAMI) will be affixed to the window. The certification program label includes the manufacturer's name (**Four Seasons Solar**); product name: **700 Impact Rated Vinyl Single Hung Window**; performance characteristics; the approved inspection agency (NAMI); and the applicable standards: AAMA/WDMA/CSA 101/I.S.2/A440-05, ASRTM E 1886-02/05 and ASTM E 1996-02/05.

**LIMITATIONS**

**Design pressures (DP):**

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	54	76	± 60

**Impact Resistance:** These assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the **Inland I zone** and the **Seaward zone**. The assemblies passed Missile Level D specified in ASTM E 1996-02/05. The assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded. These 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 evaluation report. Detailed installation instructions and drawings are available from the manufacturer.

**Installation:** The window frame shall be fastened to minimum Southern Yellow Pine dimension lumber. The window is secured to the wall framing using the window frame with minimum No 10 screws. The fasteners are required along the frame head and side jambs. Along the head, the fasteners shall be spaced approximately  $3\frac{1}{2}$  inches from each corner and approximately 16 inches on center. Along the side jambs, the fasteners shall be spaced approximately 4 inches from each corner and approximately 13 inches on center. No fasteners are required in the sill. The fasteners shall be long enough to penetrate a minimum of  $1\frac{1}{2}$  inches into the wall framing.

**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.