

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION WIN-1408

Effective June 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 **April 2014**.*

*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.*

**ES5000AW Vinyl Awning Windows, Replacement Construction, Non-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 ES5000AW windows are vinyl awning windows. The vinyl awning windows evaluated in this report are individual, non-impact resistant windows. This product evaluation report is for vinyl awning windows based on the following tested constructions:

### General Description:

System	Description	Label Rating
1	ES5000AW Vinyl Awning Window; (X)	AP-C60 60 x 36

### Product Dimensions:

System	Overall Size	Sash Size
1	60" x 36"	58 $\frac{3}{8}$ " x 34 $\frac{1}{2}$ "

### 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 Description Key" for the glazing method description.

**Glass Construction Key:**

IG-1: The window contains a sealed insulating glass unit. The sealed insulating glass unit is comprised of two 1/4" annealed glass lites separated by an aluminum box spacer system. 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 Description Key:**

GM-1: The insulated glass units are interior glazed against a dual fin gasket and silicone sealant. The insulating glass unit is secured in place with rigid vinyl glazing beads and a co-extruded vinyl fin against the glass unit.

**Frame Construction:** The frame members are constructed of polyvinyl chloride (PVC). The frame corners are mitered and welded.

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

**Reinforcement:** U-shaped roll-formed steel reinforcement is located in all frame members. Custom shaped roll formed steel reinforcement is utilized in all of the sash members. The reinforcement extends the length of the members.

**Hardware:**

- Half turn lever lock; One (1) required; Located on the jambs, 10 inches from the bottom rail.
- Snubbers; Three (3) required; Located on the hinge stile, 17 inches from the head and the sill.
- Two bar roto crank; One (1) required; Located at the mid span of the sill.
- Two bar hinges; Two (2) required; Located at the top of each sash stile.
- Snubbers; Two (2) required; Located at the head, 20 inches from each end.

**Product Identification:** A certification program label (AAMA) will be affixed to the window. The certification program label includes the manufacturer's code name (**FS-1**); product name: **ES5000AW**; performance characteristics; the approved inspection agency (AAMA); and the applicable standard: AAMA/WDMA/CSA 101/I.S.2/A440-05.

**LIMITATIONS**

**Design pressures (DP):**

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	60	36	± 60

**Impact Resistance:** These window assemblies do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These window assemblies will need to be protected with an impact protective system when installed in areas where windborne debris protection is required.

**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 prepared and installed in accordance with the manufacturers recommended installation instructions. Detailed installation instructions and drawings are available from the manufacturer.

**Installation:** The wall framing shall be minimum Spruce-Pine-Fir dimension lumber. The window shall be fastened to the wall framing using minimum  $\frac{1}{2}$ " x 3" wood blind stops along the interior and the exterior perimeter of the window. The fasteners shall be spaced approximately 3 inches from corner and approximately 16 inches on center. The fasteners shall be long enough to penetrate a minimum of  $1\frac{1}{2}$  inches into the wall framing members.

**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.