

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION

Effective May 1, 2008

WIN-949

*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 2010**.*

*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 9000 Vinyl Single Hung Windows, Individual, Impact Resistant**, manufactured by

**Shwinco Industries, Inc.**  
**400 Aberdeen Loop**  
**Panama City, Florida 32405**  
**Telephone: (850) 271-8900**

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 9000 single hung windows evaluated in this report are individual, impact resistant windows. This evaluation report includes vinyl single hung windows based on the following tested configuration:

### General Description:

System	Description	Label Rating
1	Series 9000 Vinyl Tilt Fin Frame Single Hung Window; (O/X)	H-C95 53 x 74 Maximum Size Tested: 4'5" x 6'2"

### Product Dimensions:

System	Overall Size	Operable Sash Size	Fixed Daylight Opening Size
1	53" x 74"	49 <sup>5</sup> / <sub>8</sub> " x 36 <sup>1</sup> / <sub>4</sub> "	48 <sup>1</sup> / <sub>4</sub> " x 32 <sup>1</sup> / <sub>2</sub> "

### 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 and operable sashes contain a sealed insulating glass unit. The sealed insulating glass unit is comprised of a laminated glass unit and a  $\frac{3}{16}$ " annealed glass lite separated by a desiccant-filled spacer system. The laminated glass unit is comprised of two double strength ( $\frac{1}{8}$ " ) annealed glass lites with a 0.090 inch PVB interlayer. The glass thickness, type, and construction used in the insulating glass unit of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-02 and ASTM E 1886-02/05 and ASTM E 1996-02/05.

**Glazing Method Key:**

GM-1: The insulating glass units are exterior glazed onto a bed of silicone backbedding along the full perimeter. The insulating glass units are secured in place with vinyl snap-in glazing beads at the exterior side of the insulating glass unit.

**Frame Construction:** The frame members are manufactured from extruded vinyl (PVC). The frame corners are mitered and welded construction. The frame is not thermally broken. The fixed interlock is coped, butted, and secured to the frame side jambs with two (2) screws per end.

**Sill Riser:** A rigid vinyl sill rise adaptor is snap-fit onto the interior leg of the frame sill and is held in position with adhesive. The height of the sill riser is 2 inches.

**Sash Construction:** The sash members are manufactured from extruded vinyl (PVC). The sash is an interlocking mechanical assembly. The sash corners are coped, butted and secured with one (1) screw per corner. The sash is not thermally broken. There are two vinyl clips attached to the jambs used to secure the bottom sash.

**Reinforcement:** Extruded aluminum reinforcement is utilized in the hollows of each sash stile, bottom rail, top rail, and the fixed meeting rail. The reinforcement extends the length of the members.

**Hardware:**

- Cam locks; Two (2) required; Each located  $6\frac{1}{2}$  inches from each end of the sash top rail. Secured to the sash top rail with two (2) screws each.
- Keepers; Two (2) required; Located in a grooved channel on the fixed interlock rail opposite the cam lock locations. They are fastened into position with screws.
- Plastic lockable tilt latch; Two (2) required; Located at each end of the top active meeting rail. Fastened into position with screws.
- Metal channel shaped pivot bar; Two (2) required; One (1) located on each side of the underside of the active bottom rail. Fastened into position with screws.
- Spiral balance with locking tilt shoe; Two (2) required; One located in each frame side jamb.

**Product Identification:** A certification program label (NAMI) will be affixed to the assembly. The certification program label includes the manufacturer's name; product name: **Series 9000 Vinyl Tilt Fin Frame Single Hung Window**; performance characteristics; and approved inspection agency to indicate compliance with ANSI/AAMA/NWDA 101/I.S.2-97, AAMA/WDMA/CSA 101/I.S.2/A440-05 and with ASTM E 1886-02/05 and ASTM E 1996-02/05.

## LIMITATIONS

### Design pressures:

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressures (psf)
1	53	74	± 95

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

**Acceptance of Smaller Assemblies:** Window 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 wall framing members shall be minimum Spruce-Pine-Fir dimension lumber. The window shall be mounted to the wood wall framing members using the nailing fin of the window with minimum  $\frac{1}{8}$ " diameter smooth shank roofing nails. The fasteners shall be located approximately 4 inches from each corner and approximately 8 inches on center along the perimeter of the window frame. The fasteners shall be long enough to penetrate a minimum of  $1\frac{1}{2}$ " 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.