

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION WIN-539

Effective November 1, 2005

*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 3 years after the effective date.*

*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 9600H Vinyl Awning Windows, Impact Resistant, manufactured by**

**Modern Window & Doors, Inc.  
2200 Spring Street  
Hot Springs, AR 71901  
(501) 321-1019**

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 9600H window is a vinyl awning window. The awning windows evaluated in this report are impact resistant windows. This report includes the following awning window configurations:

**Individual Awning Window  
Double Stacked Awning Windows  
Triple Stacked Awning Windows**

This product evaluation report is for vinyl awning windows based on the following tested construction:

### General Description:

System	Description	Label Rating
1	Series 9600H; Individual Awning Window; (X)	AP-R65 48 x 98

### Product Dimensions:

System	Overall Size	Vent Size (Each Awning Window)
1	48" x 97 $\frac{5}{16}$ "	46 $\frac{3}{8}$ " x 30 $\frac{5}{16}$ "

**Note:** The maximum vent size(s) for any awning window configuration (individual, double, or triple) shall not exceed 46  $\frac{3}{8}$ " x 30  $\frac{5}{16}$ ".

**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 Description Key" for the glazing construction.

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

**Glazing Description Key:**

IG-1: The vent contains a sealed insulating glass unit. The sealed insulating glass unit is comprised of a laminated glass unit and a double strength ( $\frac{1}{8}$ " ) Low-E AC annealed glass lite separated by a Truseal Swiggle™ spacer system. The laminated glass lite is comprised of two double strength ( $\frac{1}{8}$ " ) annealed glass lites with a Solutia 0.090" PVB interlayer.

**Glazing Method Key:**

GM-1: The insulating glass unit is set from the interior with SikaFlex® 250 PC-C one part polyurethane at the exterior and the heel of the insulating glass unit along the full perimeter. A dual durometer snap-in glazing bead secures the insulating glass unit from the interior. SikaFlex® PC-C one part polyurethane is used beneath the glazing bead.

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

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

**Mullion Construction:** The awning frames are stacked using a 6063-T6 aluminum extruded mull between the vinyl frame members. The aluminum mull is mechanically fastened through the frame into the mull. The interior and exterior face of the frame at the mullion is covered with a vinyl (PVC) snap-on mull cover that is sealed with silicone.

**Reinforcement:** Extruded steel C-channel is located inside the vent members and the frame jambs. The reinforcement extends the length of the members.

**Hardware:**

<u>Description</u>	<u>Location</u>
Roto-type vent operator	Located at the interior face of the frame sill, attached with screws
Roto operator tie bars	Attached to steel slide track at vent bottom rail
Friction hinge	Attached to vent with screws; attached to frame with screws
Bar hinge	Vent stiles
Keepers	Frame
Hinge tie bar	Attached to hinge bracket pin
Hinge bracket	Attached to frame
Snubbers (three pairs)	Each end and mid-span of vent top rail; Each end and mid-span of frame head and vent members

**Product Identification:** A certification program label will be affixed to the window. The certification program label includes the manufacturer's name, performance characteristics and approved inspection agency to indicate compliance with the requirements of AAMA/NWWDA 101/I.S.2. The certification program label also includes a tab that references AAMA 506-2000 and that the product conforms to ASTM E 1886 and E 1996.

## LIMITATIONS

### Design pressures:

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressures (psf)
1	48	97 $\frac{5}{16}$	± 65

**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 1996-01. 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.

**Maximum Vent Size(s):** For all configurations, the vent size(s) shall not exceed 46  $\frac{3}{8}$ " x 30  $\frac{5}{16}$ ".

**Maximum Dimensions for Individual and Double Awning Windows:** The maximum width and height shown above is for the triple awning assembly. For individual and double configurations, the maximum width shall not exceed 48 inches.

**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. The wood wall framing members shall be minimum Southern Yellow Pine lumber.

**Installation:** The window assemblies may be installed with or without a nailing fin. As a minimum, the window frame shall be installed with steel clips (4.75" x 1.125" x 0.025" thick) that are slotted and twist into groove of the frame. Along the frame jambs, the clips are located approximately 2  $\frac{1}{2}$  inches from each end and at the mid-span of each individual awning window (total of three clips per awning window). Along the frame head and sill, the clips are located approximately 6  $\frac{1}{2}$  inches from each end and at the mid-span. The clips are attached to the window frame with two (2) minimum No.8 x  $\frac{5}{8}$ " screws and to the wall framing with one (1) minimum No. 8. The screw shall be long enough to penetrate a minimum of 1  $\frac{1}{2}$ " 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.