

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION WIN-171

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 9500H Vinyl Single Hung Windows, Impact Resistant, manufactured by:

**Modern Window and Doors, Inc.
2200 Spring Street
Hot Springs, Arkansas 71901
Telephone: (800) 835-8998**

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 9500H window is a vinyl single hung window. The 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 9500H; Individual Single Hung Window; (O/X)	H-LC50 44 x 84
2	Series 9500H; Individual Single Hung Window; (O/X)	H-R60 54 x 76

Product Dimensions:

System	Overall Size	Sash Size
1	44" x 84"	40 ⁷ / ₈ " x 41 ¹ / ₁₆ "
2	53 ¹ / ₂ " x 76"	50 ¹ / ₂ " x 37"

Glazing Description:

System	Glass Construction ¹	Glazing Method ²
1	IG-1	GM-1
2	IG-1	GM-2

Note: ¹ See the "Glass Description Key" for the glazing construction.

² See the "Glazing Method Key" for the glazing method description.

Glazing Description Key:

IG-1: The fixed lite and the operable sash contain sealed insulating glass units. The sealed insulating glass units are comprised of a laminated glass unit and a double strength ($\frac{1}{8}$ ") Low-E AC annealed glass lite separated by a 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 units set from the interior against DOW 995 structural silicone backbedding at the interior, heel, full perimeter. A dual durometer snap-in glazing bead secures the insulating glass unit from the interior.

GM-2: 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. The upper sash snap-in interlock is attached to the upper sash bottom rail with No. 8 screws. Snap-in pocket covers are located at the frame head and sill sash pockets.

Sill Extender: A rigid vinyl (PVC) snap-in sill extender is located at the interior of the frame sill.

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

Reinforcement: Extruded steel C-channel is located in the upper and lower sash members and in the frame members.

Hardware:

<u>Description</u>	<u>Location</u>
Cam action locks	Each end of sash top rail
Keepers	Attached to upper sash bottom rail with screws
Spiral type balances	Two in each jamb

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	44	84	± 50
2	53 ½	76	± 60

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.

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. The clips are located approximately 6 inches from each corner and are spaced a maximum of 22 inches on center. The clips are attached to the frame with one (1) minimum No.8 x 5/8" metal screw at the exterior slot of the clip and one (1) minimum No. 8 x 1" metal screw at the clips interior slot. Each clip is attached to the wood framing members with one (1) minimum No. 8 x 1" wood screw. In the presence of a nailing fin, the window assembly fin may also be secured to the wood framing members with a continuous bead of silicone and with minimum No. 8 wood screws spaced within 6 inches from each corner and a maximum of 8 inches on center along the perimeter of the frame. The fastener shall be long enough to penetrate a minimum of 1 ½" 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.