

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION WIN-481

Effective August 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 9200H and 9500H Vinyl Mulled 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 9200H and 9500H windows are vinyl windows. The vinyl windows evaluated in this report are mulled, impact resistant windows. **This evaluation report contains mulled windows using the following individual window products that are currently listed in Texas Department of Insurance product evaluation reports:**

Series 9200H Vinyl Fixed Windows
Series 9500H Vinyl Single Hung Windows

This product evaluation report includes the following configurations:

A Series 9200H Fixed Window Stacked Over Two Mulled Series 9500H Single Hung Windows
A Series 9200H Fixed Window Stacked Over One Series 9500H Single Hung Window

This product evaluation report is for the following vinyl mulled window assemblies:

General Description:

System	Description	Label Rating
1	A Series 9200H Fixed Window Stacked Over One Series 9500H Single Hung Window	H-LC50 44 x 84 (Single Hung) F-R50 50 x 84 (Fixed)
2	A Series 9200H Fixed Window Stacked Over Two Series 9500H Single Hung Windows	H-LC50 44 x 84 (Single Hung) F-R50 50 x 84 (Fixed)

Product Dimensions (Dimensions of Individual Units in Mulled Assembly):

System	Maximum Width of Individual Units	Maximum Height of Individual Units
1	Single Hung Window: 41 ½" Fixed Window: 41 ½"	Single Hung Window: 71" Fixed Window: 42"
2	Single Hung Window: 36 ½" Fixed Window: 84"	Double Hung Window: 71" Fixed Window: 42"

Glazing Description: The glass construction and the glazing method for each type of individual window unit that makes up the mulled assemblies shall be as specified in the Texas Department of Insurance evaluation reports for those individual window units.

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

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

Hardware: The hardware for the single hung windows that make up the mulled assemblies shall be as specified in the Texas Department of Insurance evaluation reports for those individual window units.

Reinforcement:

Individual Window Units: Each individual window unit that makes up the mulled assembly shall be reinforced as specified in the Texas Department of Insurance evaluation reports for those individual window units.

Mullion: The mullions between the jambs of the single hung windows and between the frame members of the fixed and single hung windows contain custom shaped extruded 6063-T6 aluminum tubes. The tubes run the full length of the frame members. The aluminum tubes are mechanically attached between the frame members with No. 8 screws spaced a maximum of 6 inches from each end and a maximum of 8 inches on center.

Product Identification: A certification program label will be affixed to each individual window of the mulled assembly. 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. **Note:** The certification program label is for the performance characteristics of the individual window in the mulled assembly. The design pressure rating for the mulled assembly is as specified in the Limitations Section of this evaluation report.

LIMITATIONS

Design pressures:

System	Overall Maximum Width (in.)	Overall Maximum Height (in.)	Design Pressures (psf)
1	41 ½"	114"	± 50
2	84"	114"	± 50

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.

Mulled Assemblies: Each individual window unit in the mulled assembly shall bear a certification program label. The design pressure rating for the mulled assembly shall not exceed the values specified in the table above.

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 2 inches from each corner, approximately 2 inches on either side of the mull for twin mulled single hung windows, approximately 2 inches on either side of the horizontal mull between the single hung windows and the fixed window, and a maximum of 18 inches on center along the perimeter of the window assembly. The clips are attached to the frame with one (1) minimum No.8 x $\frac{5}{8}$ " 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 $\frac{1}{2}$ " 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) and the International Building Code (IBC) and the Texas Revisions.