

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION WIN-1221

Effective December 1, 2009

*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 **October 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.

Aluminum Clad Hybrid Wood Double Hung Studio Window, Impact Resistant, manufactured by

Lincoln Wood Products, Inc.
1400 W. Taylor Street
Merrill, Wisconsin 54452
(715) 536-2461

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 aluminum clad hybrid double hung studio window is a wood double hung window. The aluminum clad hybrid wood double hung studio windows evaluated in this report are individual, impact resistant windows. This product evaluation report is for aluminum clad hybrid wood double hung studio windows based on the following tested constructions:

General Description:

System	Description	Label Rating
1	Aluminum Clad Wood Hybrid Double Hung Studio Window; (O)	FW-C50 53 x 77 AAMA 506-06

Product Dimensions:

System	Overall Size	Sash Size
1	53 1/2" x 76 3/8"	51" x 75"

Glazing Description:

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

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

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

Glass Construction Key:

IG-1: The sash contains a sealed insulating glass unit. The sealed insulating glass unit is comprised of a $\frac{3}{16}$ " annealed glass lite and a laminated glass unit separated by an aluminum spacer system. The laminated glass unit is comprised of two double strength ($\frac{1}{8}$ ") annealed glass lites with a 0.090 SGP interlayer. The glass thickness used in the insulating glass unit in the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

Glazing Method Key:

GM-1: The insulating glass unit is set from the interior against a continuous structural silicone backbedding of Nova Flex M418. Wood glazing stops secure the insulating glass units in place from the interior. The wood glazing stops are secured to the frame with brads spaced approximately 3 inches on center.

Frame Construction: The frame head and jambs consist of molded pine sections. The frame corners are square cut, rabbet, glued, and secured with staples. The cellular PVC frame sill utilizes foam gasket and silicone sealant at the corners and is secured to the jambs with one screw per corner. A cellular PVC blind stop is secured to the wood frame with nails. Interior wood frame stops are secured to the head, sill, and side jambs with staples. **Aluminum Cladding:** The extruded aluminum cladding is miter cut at the head, foam gasket applied, silicone sealed, and secured with one (1) screw per corner. The cladding snap-fit to the wood frame members and is secured with staples.

Sash Construction: The sash head, sill, and jambs consist of molded pine members. The sash corners are mortise and tenon construction and are secured with brads. The sash is secured to the frame with an extruded aluminum L bracket sash snubber at the frame sill. The sash is secured to the frame head and verticals with twist nails. The sash bottom rail is secured to the PVC sill with screws. **Aluminum Cladding:** The exterior extruded aluminum cladding is square cut, gasket applied, and snap-fit onto the wood sash members.

Product Identification: A certification program label (AAMA) will be affixed to the window. The certification program label includes the manufacturer's code name (**LN-1**); product name: **Clad Hybrid Double Hung Studio**; performance characteristics; the approved inspection agency (AAMA); and the applicable standards: AAMA/WDMA/CSA 101/I.S.2/A440-05 and AAMA 506-06.

LIMITATIONS

Design pressures (DP):

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	53 $\frac{1}{2}$	76 $\frac{3}{8}$	± 50

Impact Resistance: These window assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the **Inland I zone** and the **Seaward zone**. These window assemblies passed Missile Level D specified in ASTM E 1996-04. 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 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 window shall be fastened to minimum Southern Yellow Pine dimension lumber using the nailing flange at the head, sill, and side jambs of the window frame and with masonry clips. Corner gusset plates are utilized at each corner of the nailing flange and silicone sealed to the nailing flange. The nailing flange shall be secured to the wall framing with 2" long roofing nails (minimum 12 gauge smooth shank diameter). The fasteners shall be spaced approximately 7 inches from each corner and approximately 7 inches on center. Masonry clips (1 ½" x 6 ½" x 0.05") are secured to the window frame with two (2) No. 7 x ¾" screws per clip and are secured to the wall framing with two roofing nails (minimum 12 gauge smooth shank diameter). Along the head, a masonry clip is required approximately 2 inches from each end and approximately 15 inches on center. Along each jamb, a masonry clip is required approximately 2 inches from each end and approximately 18 inches on center. All fasteners shall be long enough to penetrate a minimum of 1 ½ inches into the wall framing members. The nailing flange is silicone sealed to the window frame.

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.