

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION WIN-1220

Effective December 1, 2009
Revised November 1, 2010

*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 **May 2013**.*

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 Wood Casement 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 casement window is a wood window. The aluminum clad wood casement window evaluated in this report is an individual, impact resistant window. This product evaluation report is for an aluminum clad wood casement window based on the following tested construction:

General Description:

System	Description	Label Rating
1	Aluminum Clad Wood Casement Window; (X)	C-LC50 37 x 77 AAMA 506-06

Product Dimensions:

System	Overall Size	Sash Size
1	37" x 77"	35" x 74 ⁷ / ₈ "

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 $\frac{5}{32}$ " 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 and type used in the insulating glass unit of 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, sill, and jambs consist of molded pine sections. The frame corners are square cut, rabbeted, glued, and secured with staples. A wood sill stop is secured with brads spaced 6 inches on center. The head stop and side jamb stops are secured with staples spaced approximately 10 inches on center. **Aluminum Cladding:** The exterior aluminum cladding is miter cut, corner keyed, sealed, and snap-fit to the wood frame members.

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. **Aluminum Cladding:** The exterior cladding is square cut, foam gasket applied, and snap-fit to the wood sash members.

Hardware:

- Dual arm roto operator; One (1) required; Located on the frame sill, 6 inches from the jamb.
- Three point lock system and adjacent keepers; One (1) required; Located on the locking jamb/stile, located 13, 37, and 62 inches from frame head.
- 14" metal hinge w/track; Two (2) required; Located on the frame head and sill at the hinge side.
- 1 $\frac{1}{2}$ " exterior metal snubber; Three (3) required; Located on the frame jamb at hinge side, at 13 $\frac{1}{4}$ inches from the head and sill and one at the center point.
- 6" concealed metal snubber; Two (2) required; Located on the frame jamb at hinge side, at 26 inches from each side.

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 Casement**; performance characteristics; the approved inspection agency (AAMA); and the applicable standards: AAMA/NWWDA 101/I.S.2-97 and AAMA 506-06.

LIMITATIONS

Design pressures (DP):

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	37	77	± 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 in 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 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. 6 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 one at the mid-span. Along each side 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.