# TEXAS DEPARTMENT OF INSURANCE

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**PRODUCT EVALUATION** January 1, 2009
WIN-1014

*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* ***July 2009.***

*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 97 Aluminum Clad Horizontal Sliding Wood Windows, Non-impact Resistant,** manufactured

**Eagle Window and Door**
**2045 Kerper Blvd**
**Dubuque, IA 52001**
**563-556-2270**
**www.eaglewindow.com**

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 Horizontal Sliding Wood Windows are extruded aluminum clad wood horizontal sliding windows. The aluminum clad wood horizontal sliding windows evaluated in this report are individual, non-impact resistant windows based on the following tested constructions.

**General Description:**

| System | Description | Label Rating |
|---|---|---|
| 1 | Aluminum Clad Wood Sliding Window (OX) | HS-C30 (72 x 60) |
| 2 | Aluminum Clad Wood Sliding Window (OX) | HS-C30 (72 x 48) |

**Product Dimensions:**

| System | Overall Frame Size | Operating Sash Size | Fixed Sash Size |
|---|---|---|---|
| 1 | 72" x 60" | 35 5/16" x 56 3/16" | 35 1/4" x 56 3/16" |
| 2 | 72" x 48" | 35 5/16" x 44 3/16" | 35 1/4" x 44 3/16" |

**Glazing Description:**

| System | Glass Construction [1] | Glazing Method [2] |
|---|---|---|
| 1 | IG-1 | GM-1 or GM-2 |
| 2 | IG-2 | GM-1 or GM-2 |

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 window contains a sealed insulating glass unit in each sash. The sealed insulating glass unit is comprised of two sheets of nominal double strength ($\frac{1}{8}$") annealed glass separated by a desiccant-filled steel u-shaped spacer system. 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.

IG-2: The window contains a sealed insulating glass unit in each sash. The sealed insulating glass unit is comprised of one sheet of nominal single strength ($\frac{3}{32}$") Low-E annealed glass at the exterior and one sheet of single strength ($\frac{3}{32}$") annealed glass at the interior separated by an aluminum spacer system. 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 butyl rubber mastic and silicone. 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 2 inches from each corner and 6 to 8 inches on center.

GM-2: The insulating glass unit is set from the interior against hot melt silicone glazing sealant. 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 2 inches from each corner and 6 to 8 inches on center.

**Frame Construction (System 1):** The wood frame is comprised of laminated veneer lumber with corners square-cut, butted, glued, and secured with three staples on the head corners and two No. 8 screws per sill corner.

**Aluminum Cladding:** The extruded aluminum cladding is slip-fit over the wood frame members with the corners miter cut, silicone sealed, nylon corner keyed, and secured with two No. 6 screws per corner.

**Sash Construction (System 1):** The wood sash is composed of molded pine with mortise and tenon construction and is fastened with glue and one staple at each corner.

**Aluminum Cladding:** Extruded aluminum cladding was slip-fit over the wood sash members with the corners secured with two No. 4 screws per corner and a nylon corner key.

**Frame Construction (System 2):** The wood frame is comprised of laminated veneer lumber at the head and jambs and the sill was extruded aluminum. The corners rabbet jointed, butted, sealed with silicone and secured with three staples per corner at the head and two No. 8 screws per sill corner.

**Aluminum Cladding:** The extruded aluminum cladding is slip-fit over the wood frame members with the corners miter cut, silicone sealed, nylon corner keyed, snap-fit to the wood and secured with two No. 7 screws per corner.

**Sash Construction (System 2):** The sill at the stationary sash employed an extruded aluminum outer sill track that was secured to the sill with No. 6 screws spaced six inches on center. A nylon sill block was secured to the outer sill track with three No. 8 screws. A wood jamb block was secured to the stationary

sash jamb with staples spaced approximately six inches on center. The operable sash jamb had a wood interior jamb cover secured with staples spaced approximately six inches on center. The stationary sash had a wood sash support secured with No. 7 screws spaced approximately ten inches on center.

**Aluminum Cladding:** The extruded aluminum cladding had the corners miter cut, silicone sealed, nylon corner keyed, and secured with two No. 5 screws per corner.

**Hardware:**

| **H-1** Description | Quantity | Location |
|---|---|---|
| Sliding window rollers | 2 | Bottom rail of operating sash |
| Sliding window handle | 1 | Jamb stile of operating sash |
| Keeper | 2 | Check stile of stationary sash |
| Lock | 2 | Check stile of operating sash |

| **H-2** Description | Quantity | Location |
|---|---|---|
| Casement operator with track and limit stop | 1 | Frame sill/bottom rail |
| Casement operator bracket | 1 | Bottom rail of sash |
| Snubber | 1 | Frame jamb at midspan |
| Three point lock system with keepers | 1 | Locking jamb/stile 12 ½", 35 ½", and 58 ½" from bottom rail |
| 10" metal hinge with track | 2 | Frame head and sill/rails |

**Product Identification:**

**System 1:** A certification program label (WDMA) will be affixed to the window. The certification program label includes the manufacturer's name, product name: **Aluminum Clad Horizontal Sliding Wood Windows**; performance characteristics; the approved inspection agency (WDMA); and the applicable standard: AAMA/WDMA/CSA I.S.2/A440-05 and ANSI/AAMA/WDMA 101/I.S.2-97.

**System 2:** A certification program label (WDMA) will be affixed to the window. The certification program label includes the manufacturer's name, product name: **Aluminum Clad Horizontal Sliding Wood Windows**; performance characteristics; the approved inspection agency (WDMA); and the applicable standard: AAMA/WDMA/CSA I.S.2/A440-05 and ANSI/AAMA/WDMA 101/I.S.2-97.

## LIMITATIONS

**Design pressures (DP):**

| System | Maximum Width (in.) | Maximum Height (in.) | Design Pressure (psf) |
|---|---|---|---|
| 1 | 72 | 60 | ± 30 |
| 2 | 72 | 48 | ± 30 |

**Impact Resistance:** These window assemblies do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These window assemblies will 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:**

**System 1:** The wall framing shall be minimum Spruce Pine Fir dimension lumber. The window is secured to the wall framing with the nailing fin of the window attached to the window frame. The nailing fin is secured to the wall framing with minimum 12 gauge smooth shank nails spaced approximately 3½ inches from each corner and approximately 10 inches on center. All fasteners shall be long enough to penetrate a minimum of 1½ inches into the wall framing.

**Systems 2:** The wall framing shall be minimum Spruce Pine Fir dimension lumber. The window is secured to the wall framing with the nailing fin of the window attached to the window frame. The nailing fin is secured to the wall framing with minimum 12 gauge smooth shank nails spaced approximately 6 inches from each corner and approximately 6 inches on center.

**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.