

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION

WIN-1028

Effective February 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 **May 2011**.

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 02 Aluminum Clad Wood Axiom Casement Vent Windows, Impact Resistant**, manufactured by:

**Eagle Window and Door**  
2045 Kerper Blvd  
Dubuque, IA 12004  
563-556-2270  
[www.eaglewindow.com](http://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 Series 02 Axiom Casement Vent Windows are extruded aluminum clad wood casement windows. The aluminum clad wood casement vent windows evaluated in this report are individual, impact resistant windows based on the following tested constructions.

### General Description:

System	Description	Label Rating
1	Aluminum Clad Wood Casement Window; (X)	C-C55 (36 x 72)
2	Aluminum Clad Wood Casement Window; (X)	C-C65 (36 x 66)

### Product Dimensions:

System	Overall Frame Size	Sash Size
1	36" x 72"	34 1/2" x 70 1/2"
2	36" x 66"	34 1/2" x 64 1/2"

**Glazing Description:**

System	Glass Construction <sup>1</sup>	Glazing Method <sup>2</sup>
1	IG-1	GM-1
2	IG-1	GM-1

Note: <sup>1</sup> See the "Glass Construction Key" for the glazing construction.

<sup>2</sup> See the "Glazing Method Key" for the glazing method description.

**Glass Construction Key:**

IG-1: The window contains a sealed insulating glass unit comprised of one double-strength ( $\frac{1}{8}$ " sheet of heat strengthened glass and one laminated glass unit separated by a desiccant-filled aluminum box spacer system. The laminated glass unit is comprised of two double-strength ( $\frac{1}{8}$ " annealed sheets 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 and with ASTM E 1886 and ASTM E 1996.

**Glazing Method Key:**

GM-1: 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 with single-sided adhesive foam tape are secured to the frame with brads spaced 1 inch from each corner and 6 to 8 inches on center.

**Frame Construction (Systems 1-2):** The wood frame is comprised of laminated veneer lumber with corners square cut, butted, sealed with silicone and secured with two staples per corner. The head stop is secured with staples spaced approximately 6 inches on center. The side stops are secured with glue and a vinyl spline. The sill operator cover was secured with three No. 8 screws.

**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 screws per corner.

**Sash Construction (Systems 1-2):** The wood sash is composed of molded pine with mortise and tenon construction and is fastened with glue and a No. 7 screw at each corner.

**Aluminum Cladding:** Extruded aluminum cladding was slip-fit over the wood sash members with the corners miter cut, silicone sealed with a nylon corner key and one No. 5 x  $1\frac{1}{2}$ " screw per corner.

**Hardware Description:**

**System-1:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Stainless steel piano hinge	1	Continuous length on hinge side
Single bar actuator with lock and keepers	3	11 $\frac{1}{2}$ ", 34 $\frac{5}{8}$ ", and 57 $\frac{13}{16}$ " from bottom of the sash
Casement roto-operator	1	Sill

**System-2:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Stainless steel piano hinge	1	Continuous length on hinge side
Single bar actuator with lock and keepers	3	11 $\frac{1}{2}$ " and 54 $\frac{3}{4}$ " from bottom of the sash
Casement roto-operator	1	Sill

**Product Identification:**

**Systems 1-2:** A certification program label (WDMA Hallmark Certified) will be affixed to the window. The certification program label includes the manufacturer's name, product name: **Clad Axiom Casement Aluminum Clad Frame**; performance characteristics; the approved inspection agency (WDMA); and the applicable standard: AAMA/WDMA/CSA 101/I.S.2/A440-05, and with ASTM E 1886-02 and ASTM E 1996-02.

**LIMITATIONS**

**Design pressures (DP):**

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	36	72	+55/-65
2	36	60	+55/-65

**Impact Resistance:** These window assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in both the **Inland II zone**, and the **Seaward zone**. The window assemblies passed Missile Level D specified in ASTM E 1996-02 and ASTM 1886-02. 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:** Windows assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

**Tested to a Higher Negative Design Pressure:** The WDMA label indicates that there is a higher negative design pressure rating for the product. The higher negative design pressure is specified in the table above.

**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 1-2:** The wall framing shall be minimum Southern Yellow Pine dimension lumber. The window is secured to the wall framing using the frame of the window with minimum No. 10 x 2 1/4" screws. The screws are located approximately 6 inches from each corner and approximately 12 inches on center. All fasteners shall be long enough to penetrate a minimum of 1 1/2 inches 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.