

TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION WIN-1487

Effective December 1, 2011

*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 **August 2014**.*

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.

Ultra Majesta Aluminum Clad Wood Double Hung Windows, Individual, Impact Resistant,
manufactured by

Kolbe & Kolbe Millwork Co., Inc.
1323 South Eleventh Avenue
Wausau, WI 54401
Telephone: (715) 842 - 5666

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

General Description:

System	Description	Rating	Hallmark Certification
1	Ultra Majesta Double Hung; Clad; Impact Performance Missile Level D; Wind Zone 4	CW-PG65 56x96-H H-C65 56 x 96 ASTM E 1886 / ASTM E 1996	413-H-1114.00 413-H-1114.01 413-H-1114.02 413-H-1114.03 413-H-1114.04 413-H-1114.05

Product Dimensions:

System	Overall Size	Top Sash Size	Bottom Sash Size
1	56" x 96"	51 $\frac{7}{8}$ " x 46 $\frac{15}{16}$ "	51 $\frac{7}{8}$ " x 48 $\frac{1}{16}$ "

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: Both sashes contain sealed insulating glass units. The sealed insulating glass units are comprised of a laminated glass unit and a double strength ($\frac{1}{8}$ ") annealed glass lite that are separated by a desiccant-filled stainless steel spacer system. The laminated glass unit is comprised of two $\frac{5}{32}$ " annealed glass lites separated by 0.090" SGP interlayer. The glass thickness and type used in the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

Glazing Method Key:

GM-1: The insulating glass units are set from the interior onto a bed silicone. Another interior bed of silicone sealant is applied at the interior edge of the insulating glass unit around the perimeter and a vinyl bracket is installed into the kerfs in the sash. Along the interior, wood glazing stops are secured with brads spaced 2 inches from each corner and 5-6 inches on center.

Frame Construction: The frame members consist of pine. The frame corners are rabbeted, butted, sealed with silicone, and secured with screws. Interior wood stops are secured at the head, sill, and side jambs with brads and staples.

Aluminum cladding: Extruded aluminum cladding is snap-fit to the frame members. The extruded aluminum cladding at the head corners is mitered cut, corner keyed, sealed with silicone, and secured with screws at each corner. The lower sill ends are profile cut and joined using end keys.

Sash Construction: The sash members consist of pine veneer wrapped finger jointed pine stiles and LVL rails. The sash corners are mortise and tenon construction, sealed with silicone, and secured with screws.

Aluminum cladding: The extruded aluminum cladding is square cut or profile cut and secured to the wood sash with brads.

Hardware:

- Spiral spring sash balances; Eight (8) required; Located in the side jambs, four per sash.
- Hoppe top locking point with strike; One (1) required; Located at the top sash rail and head jamb, mid-span.
- Hoppe bottom locking point with strike; One (1) required; Located at the bottom sash rail and the sill mid-span
- Sash bracket and carrier; Four (4) required; Located at the bottom corners of each sash
- Metal cam locks with keepers; Two (2) required; Located 12 inches from each end of the meeting rail.

Product Identification: A certification program label (WDMA Hallmark Certified) will be affixed to the window. The certification program label includes the manufacturer's name; product name; performance characteristics; the approved inspection agency (WDMA); and the applicable standards: AAMA/WDMA/CSA 101/I.S.2/A440-05, AAMA/WWDA/CSA 101/I.S.2/A440-08 and with ASTM E 1886-09 and ASTM E 1996-05.

LIMITATIONS

Design pressures (DP):

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	56	96	+65/-70

Impact Resistance: These assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the both the **Inland I zone** and the **Seaward zone**. These assemblies passed Missile Level D specified in ASTM E 1996-09. These assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded. These assemblies will not need to be protected with an impact protective system.

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

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:

Option 1: The window assembly shall be fastened to minimum Southern Yellow Pine lumber. The window assembly is secured to the wall framing using Kolbe & Kolbe metal installation clips. The installation clips (1 $\frac{5}{8}$ " x 10 $\frac{1}{16}$ " x 0.04") are secured to the window frame side jambs, head, and sill. The clips are secured to the window frame with two (2) No. 8 x $\frac{3}{4}$ " screws. The clips are secured to the wall framing with one (1) No. 8 x 1 $\frac{3}{4}$ " screw. The fasteners shall be long enough to penetrate a minimum of 1 $\frac{1}{2}$ " into the wall framing. The spacing of the clips is specified in the table below.

Installation Clip Spacing:

System	Head and Sill (distance from each end)	Head and Sill (on center spacing)	Side Jambs (distance from each end)	Side Jambs (on center spacing)
1	14"	14"	10 $\frac{11}{16}$ "	10 $\frac{11}{16}$ "

Option 2: The window assembly shall be fastened to minimum Southern Yellow Pine lumber. The window assembly is secured to the wall framing using the window frame with minimum No. 10 screws. The fasteners shall be long enough to penetrate a minimum of 1 $\frac{1}{2}$ " into the wall framing. The spacing of the fasteners is specified in the table below.

Fastener Spacing:

System	Head and Sill (distance from each end)	Head and Sill (on center spacing)	Side Jambs (distance from each end)	Side Jambs (on center spacing)
1	8"	8"	9 ¹¹ / ₃₂ "	9 ¹¹ / ₃₂ "

Nailing Flange (both options): The perimeter of the window is secured with minimum 12 gauge smooth shank roofing nails spaced 7 inches on center penetrating through the nailing flange. The fasteners shall be long enough to penetrate a minimum of 1 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), the International Building Code (IBC), and the Texas Revisions.