

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-1484

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 **September 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 Aluminum Clad Wood Fixed Casement Windows, Individual, Impact Resistant, manufactured by

Kolbe & Kolbe Millwork Co., Inc.
1323 South Eleventh Avenue
Wausau, WI 54401
(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 fixed casement windows evaluated in this report are impact resistant. This product evaluation report is for aluminum clad wood fixed casement windows based on the following tested constructions:

General Description:

System	Description	Label Rating	Hallmark Certification
1	Ultra Fixed Casement; Missile Level D, Wind Zone 4	CW-PG75 96 x 60-FW FW-C75 96 x 60	413-H-1118.00 413-H-1118.01 413-H-1118.02 413-H-1118.03
2	Ultra Fixed Casement; Missile Level D, Wind Zone 4	CW-PG75 96 x 60-FW FW-C75 96 x 60	413-H-1117.00 413-H-1117.01 413-H-1117.02 413-H-1117.03

Product Dimensions:

System	Overall Size	Sash Size	Glass Size
1	96" x 60"	94 $\frac{1}{8}$ " x 58 $\frac{1}{8}$ "	90 $\frac{5}{8}$ " x 54 $\frac{5}{8}$ "
2	96" x 60"	94 $\frac{1}{8}$ " x 58 $\frac{1}{8}$ "	90 $\frac{5}{8}$ " x 54 $\frac{5}{8}$ "

Glazing Description:

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

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

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

Glass Construction Key:

SG-1: The window is single glazed with a laminated glass unit. The laminated glass unit is comprised of two 1/4" annealed glass lites separated by a 0.090" SGP interlayer. The glass thickness used in the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

IG-1: The window is a sealed insulating glass unit. The sealed insulating glass unit is comprised of a laminated glass unit and a 5/32" annealed glass lite that are separated by a stainless steel spacer system. The laminated glass unit is comprised of two 5/32" annealed glass lites separated by a 0.090" SGP interlayer. The glass thickness used in the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

Glazing Method Key:

GM-1: The glass unit is set from the interior onto a bed of silicone sealant backbedding. Another interior bead of structural silicone sealant is applied at the interior edge of the glass around the entire perimeter and a vinyl bracket is installed into the kerfs in the sash. Wood glazing stops are utilized along the interior and are secured with brads spaced 1 inch from each end and 5 to 6 inches on center.

Frame Construction: The frame members consist of molded pine. The frame corners are rabbeted, butted, sealed with silicone, and secured with staples and screws.

Aluminum Cladding: Extruded aluminum cladding is used at the head, sill, and side jambs and snap-fit onto the wood frame members and secured with brads.

Sash Construction: The sash members consist of molded pine. The sash corners are open mortise and tenon construction, glued, and secured with screws. The sash is secured to the frame with metal clips at the head and the side jambs.

Aluminum cladding: The extruded aluminum cladding is kerf fit, silicone, and secured to the wood sash members with T-nails.

Product Identification: A certification program label (WDMA Hallmark Certified) will be affixed to the assembly. 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/WDMA/CSA 101/I.S.2/A440-08, and ASTM E 1886-05 and ASTM E 1996-08.

LIMITATIONS

Design pressures (DP):

System	Overall Width (in.)	Overall Height (in.)	Design Pressure (psf)
1	96	60	± 75
2	96	60	± 75

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 1996-08. 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.

Acceptance of Smaller Assemblies: Assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

INSTALLATION INSTRUCTIONS

Installation: 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 x 2 ½" screws. Along the head and the sill, the fasteners are spaced approximately 8 inches from each corner and approximately 7 ¼ inches on center. Along the side jambs, the fasteners are spaced approximately 10 inches from each corner and approximately 10 inches on center. The fasteners shall be long enough to penetrate a minimum of 1 ½ inches into the wall framing. The spacing of the fasteners is specified in the table below.

Nailing Flange (both options): The perimeter of the window is secured with minimum 12 gauge smooth shank roofing nails spaced approximately 12 inches on center penetrating through the nailing flange. The fasteners shall be long enough to penetrate a minimum of 1 ½ 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.