

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

Effective July 1, 2011

WIN-410

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 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.

Heritage Traditional Wood Fixed Casement Windows, Individual, Non-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 wood fixed casement windows evaluated in this report are non-impact resistant. This product evaluation report is for wood fixed casement windows based on the following tested constructions:

General Description:

System	Description	Rating	Hallmark Certification
1	Heritage Wood Fixed Casement; Direct Set; Standard Performance	FW-C65 96 x 60	413-H-1009.00 413-H-1009.01
2	Heritage Wood Fixed Casement; Direct Set; Standard Performance	TR-C65 120 x 27	413-H-1004.00 413-H-1004.01
3	Heritage Wood Fixed Casement; Sash Set; High Performance	FW-C65 60 x 60 CW-PG65 60x60 - FW	413-H-1067.00 413-H-1067.01

Product Dimensions:

System	Overall Size	Sash Size	Glass Size
1	96" x 60"	NA	93 $\frac{5}{8}$ " x 57 $\frac{7}{8}$ "
2	120" x 27"	NA	117 $\frac{5}{8}$ " x 24 $\frac{5}{8}$ "
3	60" x 60"	58 $\frac{1}{16}$ " x 58 $\frac{1}{16}$ "	55 $\frac{1}{4}$ " x 55 $\frac{1}{4}$ "

Glazing Description:

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

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:

IG-1: Sealed insulating glass unit. The sealed insulating glass unit is comprised of two $\frac{5}{32}$ " heat strengthened glass lites separated by a desiccant filled stainless steel spacer system. The glass thickness used in the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

IG-2: Sealed insulating glass unit. The sealed insulating glass unit is comprised of two $\frac{3}{16}$ " annealed glass lites separated by a desiccant filled stainless steel spacer system. 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 insulating glass unit is interior glazed against a bead of silicone sealant. Along the interior, wood glazing stops are secured with brads spaced 2 inches from each corner and 8 inches on center.

GM-1: The insulating glass unit is interior glazed against a bead of silicone sealant. Another bead is run full length at the bottom of the glass unit before the wood glazing stop is set. Along the interior, wood glazing stops are secured with brads spaced 2 inches from each corner and 8 inches on center.

Frame Construction: The frame members consist of molded pine. The frame corners are rabbeted, butted, sealed with silicone, and secured with screws. **Brickmould:** A brickmould is secured to the side jambs and head with fasteners spaced 2 inches from each end and 9 inches on center. The sill nosing is secured to the brickmould with one (1) screw per corner.

Sash Construction (System 3): The sash members are molded pine. The sash corners are open mortise and tenon construction and are secured with brads and screws. The sash is held to the frame with blocks at the head and side jambs and secured to the frame with screws. The sash is secured to the sill with sill brackets.

Product Identification:

Systems 1 and 2: 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 following applicable standard: AAMA/WDMA 101/I.S.2/NAFS. **Higher Negative Pressure:** The window assembly was tested to a higher negative pressure. The higher negative pressure is specified on the WDMA label for the product.

System 3: 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 following applicable standards: AAMA/WDMA/CSA 101/I.S.2/A440-05 and AAMA/WDMA/CSA 101/I.S.2/A440-08. **Higher Negative Pressure:** The window assembly was tested to a higher negative pressure. The higher negative pressure is specified on the WDMA label for the product.

LIMITATIONS

Design pressures (DP):

System	Overall Width (in.)	Overall Height (in.)	Design Pressure (psf)
1	96	60	+65/-85
2	120	27	+65/-70
3	60	60	+65/-85

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.

Higher Negative Pressure: The window assembly was tested to a higher negative pressure. The higher negative pressure is indicated in the table in the Limitations section. The higher negative pressure is specified on the WDMA label for the product.

Acceptance of Smaller Assemblies: Window 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 drawings are available from the manufacturer.

Installation:

Option 1 (Installation Clips): The assembly shall be fastened to minimum Southern Yellow Pine lumber. The 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 frame side jambs and head. 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 $\frac{1}{2}$ inches into the wall framing. The spacing of the clips is specified in the table below.

Installation Clip Spacing:

System	Distance From Each Corner	Head and Sill (on center spacing)	Side Jambs (on center spacing)
1	Head/Sill: 12" Side Jambs: 15"	12"	15"
2	Head/Sill: 20" Side Jambs: 13 $\frac{1}{2}$ "	20"	13 $\frac{1}{2}$ "
2	Head/Sill: 15" Side Jambs: 15"	15"	15"

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

Screw Spacing:

System	Distance From Each Corner	Head (on center spacing)	Sill (on center spacing)	Side Jambs (on center spacing)
1	Head/Sill: 12" Side Jambs: 8 ³ / ₄ "	12"	12"	8 ³ / ₄ "
2	Head/Sill: 15" Side Jambs: 13 ¹ / ₂ "	15"	15"	13 ¹ / ₂ "
3	Head/Sill: 12" Side Jambs: 10"	12"	12"	10"

Brickmould: The brickmould shall be secured to the wall framing with minimum 2" long T-nails spaced approximately 24 inches on center along all four sides.

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.