

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION WIN-1068

Effective April 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 **December 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.*

**Fiberglass Clad Wood Double Hung Picture Window, Impact Resistant, manufactured by**

**Integrity from Marvin Windows and Doors**  
**1616 43<sup>rd</sup> Street NW**  
**Fargo, North Dakota**  
**Telephone: (701) 277-0522**

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 report.

## PRODUCT DESCRIPTION

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

### General Description:

System	Description	Label Rating
1	Fiberglass Clad Wood Double Hung Picture Window; (O); IZ3	FW-LC55 53.5 x 75.75

### Product Dimensions:

System	Overall Size	Fixed Sash Size
1	53 1/2" x 75 3/4"	50 5/16" x 72 15/16"

### Glazing Description:

System	Glass Construction <sup>1</sup>	Glazing Method <sup>2</sup>
1	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: Both sashes contain a sealed insulating glass unit. The sealed insulating glass unit is comprised of a  $\frac{5}{32}$ " fully tempered glass lite and a laminated glass unit separated by a desiccant-filled metal spacer system. The laminated glass unit is comprised of two single strength ( $\frac{3}{32}$ "") annealed glass lites with a 0.090" PVB interlayer. The glass thickness 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 units are set against Dow Corning 791 structural silicone sealant along the interior and the exterior.

**Frame Construction:** The frame head, sill, and side jambs consist of fiberglass on the exterior and wood members on the interior. The frame corners are secured with staples. A wood jamb liner is secured on each jamb with staples. A wood head, sill, and side jamb liner is snap-fit to the interior fiberglass members. **Fiberglass cladding:** The fiberglass cladding is mitered at the top joints and secured with corner keys and two (2) screws per corner. The bottom corners of the fiberglass are butt joints with tow nylon plugs in each jamb.

**Sash Construction:** The sash members consist of fiberglass on the exterior and wood members on the interior. The sash corners are secured with staples. **Fiberglass cladding:** The fiberglass cladding is mitered at both ends and secured with nylon corner keys that are injected with hot melt adhesive. The wood and fiberglass are attached with glazing tape.

**Hardware:** None.

**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 (**Integrity Impact Double Hung Picture IZ3**); performance characteristics; the approved inspection agency (WDMA); and the applicable standards: AAMA/WDMA 101/I.S.2/NAFS-02; AAMA/WDMA/CSA 101/I.S.2/A440-05 and ASTM E 1886-02 and ASTM E 1996-02.

**LIMITATIONS**

**Design pressures (DP):**

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	$53 \frac{1}{2}$	$75 \frac{3}{4}$	+55/-65

**Impact Resistance:** These window assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the **Inland I and the Seaward zone**. The window assemblies passed Missile Level D specified in ASTM E 1996-02. 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.

**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 manufacturer's recommended installation instructions. Detailed installation instructions and drawings are available from the manufacturer.

**Installation:** The window shall be fastened to minimum Southern Yellow Pine dimension lumber using the vinyl nailing fin and with installation clips. The window frame head, sill, and side jambs are secured to the wall framing using the nailing fin with minimum 12 gauge smooth shank roofing nails. The fasteners are spaced approximately 4 inches to 6 inches from each corner and approximately 8 inches on center. The window frame is secured to the wall framing with steel installation clips (1.563" x 5.151" x 1.477"). The installation clips shall be spaced approximately 6 inches from each corner and approximately 18 inches on center along the length of the members. Each clip is secured to the window frame with three (3) No. 7 x  $\frac{5}{8}$ " screws and to the wall framing with two (2) No. 8 screws. All fasteners shall be long enough to penetrate a minimum of  $1\frac{1}{2}$  inches into the wall framing members.

**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.