

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

WIN-1400

Effective April 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 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.

Series 4710FIR Aluminum Single Hung Windows, Impact Resistant, manufactured by:

Ply Gem Windows
433 North Main Street
Rocky Mount, Virginia 24151
Telephone: (800) 999-8400

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 4710FIR windows are aluminum single hung windows. The aluminum single hung windows evaluated in this report are individual, impact resistant windows. This product evaluation report is for aluminum single hung windows based on the following tested constructions:

General Description:

System	Description	Label Rating
1	Series 4710FIR Aluminum Single Hung Window; (O/X)	H-R40 48 x 72; DP +40/-57 ASTM E 1886, ASTM E 1996
2	Series 4710FIR Aluminum Single Hung Window; (O/X)	H-R40 44 x 84; DP +40/-57 ASTM E 1886, ASTM E 1996

Product Dimensions:

System	Overall Size	Sash Size	Fixed Daylight Opening Size
1	48" x 72"	46" x 29 1/2"	44 1/2" x 39 1/2"
2	44" x 84"	42" x 36"	40 1/2" x 45 3/4"

Glazing Description:

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

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

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

Glass Construction Key:

IG-1: The window contains sealed insulating glass units. The sealed insulating glass unit is comprised of a double strength ($\frac{1}{8}$ ") annealed glass lite and a laminated glass unit separated by a U-shaped steel spacer system. The laminated glass unit is comprised of two double strength ($\frac{1}{8}$ ") annealed glass lites with a 0.090" Solutia PVB 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.

Glazing Method Description Key:

GM-1: The insulated glass units are interior glazed with a silicone backbedding compound. The insulating glass units are secured in place with rigid vinyl snap-in glazing beads.

Frame Construction: The frame members are constructed of extruded aluminum. The frame corners are butt-type construction and are secured with screws. The fixed interlock is secured to the side jambs with screws.

Sash Construction: The sash members are constructed of extruded aluminum. The sash corners are butt-type construction and are secured with screws.

Reinforcement: None.

Hardware:

- Metal cam type sweep locks; Two (2) required; Located on the active meeting rail, one (1) at each end.
- Metal keeper; Extruded onto the fixed meeting rail
- Block and tackle balance; Two (2) required; Located in each side jamb.

Product Identification: A certification program label (NAMI) will be affixed to the window. The certification program label includes the manufacturer's code name (PWG-M-014 (BTX)); product name: **4710FIR**; performance characteristics; the approved inspection agency (NAMI); and the following applicable standards: AAMA/WDMA/CSA 101/I.S.2/A440-05 and ASTM E 1886 and ASTM E 1996.

LIMITATIONS

Design pressures (DP):

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	48	72	+40/-57
2	44	84	+40/-57

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 1996-04. 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 NAMI 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: The wall framing shall be minimum Southern Yellow Pine dimension lumber. The window is secured to the wall framing members using the nailing fin with minimum No. 8 screws. The fasteners shall be located approximately 4 inches from each corner, approximately 12 inches on center along the head and the sill, and approximately 9 inches on center along each side jamb. The fasteners shall be long enough to penetrate a minimum of $1\frac{1}{2}$ 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.