

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION WIN-1214

Effective December 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 **March 2012**.*

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 500 Aluminum Tilt Single Hung Windows, Non-impact Resistant, manufactured by:

**Thermal Windows, Inc.
12805 East 31st Street
Tulsa, OK 74146-2310
(918) 663-7580**

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 500 window is an aluminum single hung window. The aluminum single hung windows evaluated in this report are individual, non-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 500; Aluminum Single Hung Window; (O/X)	H-C45 56 x 91

Product Dimensions:

System	Overall Size	Operable Sash Size
1	56" x 91"	53" x 45 ⁵ / 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.

Glazing Construction Key:

IG-1: The fixed and operable sashes contain $\frac{7}{8}$ " thick sealed insulating glass units. The sealed insulating glass units are comprised of two lites of $\frac{3}{16}$ " thick annealed glass. The glass thickness and type used in the insulating glass unit of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-00.

Glazing Method Key:

GM-1: The insulating glass unit in the fixed sash is interior glazed with butyl tape and silicone cap bead at the exterior face of glass and aluminum glazing bead with glazing bead vinyl at the interior of the glass. The insulating glass unit in the operable sash is marine glazed with soft glazing vinyl.

Frame and Sash Construction: The frame members are manufactured from extruded aluminum. The frame corners are coped, butted and connected with screws. Frame and sash members are thermally broken with polyurethane.

Reinforcement: None.

Product Identification: A certification program label (AAMA) will be affixed to the window. The certification program label includes the manufacturer's code name (**TWI-1**); **Series 500 SH**; performance characteristics; and approved inspection agency to indicate compliance with the requirements of AAMA/NWWDA 101/I.S.2/A440-05.

LIMITATIONS

Design pressures:

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressures (psf)
1	56	91	± 45

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.

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 installed in accordance with the manufacturer's installation instructions. Detailed installation instructions and drawings are available from the manufacturer.

Installation: The wood wall framing members shall be minimum Southern Yellow Pine dimension lumber. The frame head is secured to the wood framing with two (2) No. 8 x $\frac{3}{4}$ " long screws located 6" from each end and spaced 12" o.c. The interior and exterior of the window frame is secured with SYP $\frac{1}{2}$ " x $1\frac{1}{2}$ " wood stops secured with No. 8 x $1\frac{1}{2}$ " long screws located at each corner and spaced 12" o.c. around the interior and exterior perimeter of the window.

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.