

TEXAS DEPARTMENT OF INSURANCE

Engineering Services / 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-1235

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 **April 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.

W210 Presidential, X210 EnergyMaster, and H210 Traditions Vinyl Tilt Double Hung Windows, Individual, Non-impact Resistant, manufactured by:

NT Windows, Inc.
4949 Rendon Road
Fort Worth, Texas 76140
Telephone: (800) 969-8830

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 W210 Presidential, X210 EnergyMaster, and H210 Traditions windows are vinyl tilt double hung windows. The vinyl tilt double hung windows evaluated in this report are individual, non-impact resistant windows. This product evaluation report is for vinyl tilt double windows based on the following tested construction:

General Description:

System	Description	Label Rating
1	W210 Presidential, X210 EnergyMaster, and H210 Traditions Vinyl Tilt Double Hung Windows; (X/X)	H-R35 40 x 63
2	W210 Presidential, X210 EnergyMaster, and H210 Traditions Vinyl Tilt Double Hung Windows; (X/X)	H-R50 40 x 63

Product Dimensions:

System	Overall Size	Upper Sash Size	Lower Sash Size
1	40" x 63"	35 ³ / ₄ " x 30 ⁷ / ₈ "	36 ³ / ₄ " x 30 ⁷ / ₈ "
2	40" x 63"	35 ³ / ₄ " x 30 ⁷ / ₈ "	36 ³ / ₄ " x 30 ⁷ / ₈ "

Glazing Description:

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

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

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

Glass Construction Key:

IG-1: Both operable sashes contain sealed insulating glass units. The sealed insulating glass units are comprised of two single strength ($\frac{3}{32}$ ") annealed glass lites separated by a rectangular shaped aluminum spacer system that is embedded in sealant. The glass thickness and type used in the insulating glass unit of the tested assembly and in smaller units shall comply with ASTM E 1300-04.

IG-2: Both operable sashes contain sealed insulating glass units. The sealed insulating glass units are comprised of two double strength ($\frac{1}{8}$ ") annealed glass lites separated by a rectangular shaped aluminum spacer system that is embedded in sealant. The glass thickness and type used in the insulating glass unit of the tested assembly and in smaller units shall comply with ASTM E 1300-04.

Glazing Method Key:

GM-1: The insulated glass units are exterior glazed and are set against double-sided adhesive tape. The insulating glass units are secured in place with rigid vinyl glazing beads.

Frame Construction: The frame members are constructed of extruded vinyl (PVC). The frame corners are mitered and welded construction.

Sash Construction: The sash members are constructed of extruded vinyl (PVC). The sash corners are mitered and welded construction.

Reinforcement:

System 1: Custom shaped aluminum reinforcement is utilized in the lock rail and the exterior meeting rail. All reinforcement extends the length of the members.

System 2: Custom shaped aluminum reinforcement is utilized in the lock rail, the exterior meeting rail, the bottom rail, and all of the sash stiles. All reinforcement extends the length of the members.

Hardware:

- Metal cam-type lock and keeper; Two (2) required; Located 7 inches from each end of the lock rail. Engages metal keepers located on the exterior meeting rail.
- Block and tackle balance system; Four (4) required; Two (2) per side jamb.
- Plastic tilt latch (System 1); Four (4) required; Located in the lock rail and the top rail, one at each end.
- Plastic tilt latch (System 2); Four (4) required; Located in the lock rail, one at each end, secured with screws.
- Plastic tilt latch (System 2); Two (2) required; Located in the top rail, one at each end.

Hardware (continued):

- Metal pivot bars; Four (4) required; Located in the lift and meeting rails, one at each end.
- Tilt latch reinforcement clip; Two (2) required; One per jamb, located at the mid span of the interior track.

Product Identification: A certification program label (AAMA) will be affixed to the window. The certification program label includes the manufacturer's code name (**NT-1**); product name: **W210 Presidential / X210 EnergyMaster / H210 Traditions DH**; performance characteristics; the approved inspection agency (AAMA); and the applicable standard: AAMA/WDMA/CSA 101/I.S.2/A440-05.

LIMITATIONS

Design pressures (DP):

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	40	63	± 35
2	40	63	± 50

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.

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:

System 1: The wall framing shall be minimum Spruce-Pine-Fir dimension lumber. The window is secured to the wall framing members using the frame of the window with minimum No. 8 x 2 ½" screws. The fasteners are required along each side jamb only. A minimum of two (2) fasteners are required along each side jamb. One fastener is located approximately 6 inches from each end. The fasteners shall be long enough to penetrate a minimum of 1 ½ inches into the wall framing.

System 2: The wall framing shall be minimum Spruce-Pine-Fir dimension lumber. The window is secured to the wall framing members using the frame of the window with minimum No. 8 x 2 ½" screws. The fasteners are required along each side jamb only. A minimum of three (3) fasteners are required along each side jamb. One fastener located approximately 6 inches from each end, and one fastener at the mid span. 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.