

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-309

Effective May 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 **June 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.

Series 5400 Vinyl Double Hung Windows, Individual Windows, New Construction or Replacement Windows, Non-impact Resistant, manufactured by:

The Don Young Company
8181 Ambassador Row
Dallas, TX 75247
(214) 630-0934

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 5400 window is a vinyl double hung window. The vinyl double hung windows evaluated in this report are individual, non-impact resistant windows. This product evaluation report is for vinyl double hung windows based on the following tested constructions:

General Description:

System	Description	Label Rating
1	Series 5400 Vinyl Double Hung Windows; (XX)	H-R30 44 x 63
2	Series 5400 Vinyl Double Hung Windows; (XX)	H-R35 44 x 63

Product Dimensions:

System	Overall Size	Upper Sash Size	Lower Sash Size
1	44" x 63"	39 $\frac{7}{8}$ " x 30 $\frac{3}{4}$ "	40 $\frac{7}{8}$ " x 30 $\frac{3}{4}$ "
2	44" x 63"	39 $\frac{7}{8}$ " x 30 $\frac{3}{4}$ "	40 $\frac{7}{8}$ " x 30 $\frac{3}{4}$ "

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 Key" for the glazing method description.

Glass Construction Key:

IG-1: Both sashes contain sealed insulating glass units. The sealed insulating glass units are comprised of two double strength ($\frac{1}{8}$ ") annealed glass lites separated either a flexible butyl (dura-seal or dura-lite) spacer material with a stainless steel-polycarbonate substrate or a U-shaped metal spacer system. 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 Key:

GM-1: The insulating glass units are set from the exterior against Novaflex structural silicone backbedding. A rigid vinyl durameter snap-in glazing bead secures the insulating glass units from the exterior.

Frame Construction: The frame members are manufactured from extruded vinyl (PVC). The frame corners are mitered and thermally welded construction.

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

Reinforcement:

System 1: Extruded aluminum reinforcement is utilized in both meeting rails and the bottom rails. The reinforcement extends the length of the members.

System 2: Extruded aluminum reinforcement is utilized in all of the sash members in both the upper and lower sash. The reinforcement extends the length of the members.

Hardware:

- Metal cam locks; Two (2) required; Located 11 inches from the outside corners of the interior sash meeting rail
- Metal keeper; Two (2) required; Located 11 inches in from the inside corners of the exterior sash meeting rail.
- Metal pivot bars; Four (4) required; Located at the bottom corners of both sashes
- Flush mounted plastic tilt latch; Four (4) required; Located at the top corners of both sashes.
- Constant force balance with shoe; Four (4) required; Located in the sash tracks in both side jambs.

Product Identification: A certification program label (AAMA) will be affixed to the window. The certification program label includes the manufacturer's code name (DY-1); product name: **Series 5400 DH**; performance characteristics; the approved inspection agency (AAMA); and the applicable standard: AAMA/WDMA/CSA 101/I.S.2/A440-05.

LIMITATIONS

Design pressures:

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressures (psf)
1	44	63	± 30
2	44	63	± 35

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 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:

Nailing Fin (New Construction): The wood wall framing members shall be minimum Southern Yellow Pine lumber. The window shall be mounted to the wood wall framing members using the nailing fin of the window with minimum No. 8 screws. The fasteners shall be spaced approximately 6 inches from each corner and approximately 6 inches on center along the perimeter of the window frame. The fasteners shall be long enough to penetrate a minimum of $1\frac{1}{2}$ inches into the wall framing members.

Frame (Replacement Windows): The wood wall framing members shall be minimum Southern Yellow Pine lumber. The window shall be mounted to the wood wall framing members using the window frame of the window with minimum No. 10 x $2\frac{1}{2}$ " screws. Along each side jamb, a minimum of three (3) fasteners are required, evenly spaced. Along the head, a minimum of two (2) fasteners are required, evenly spaced. The 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.