TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION
WIN-311

Effective May 1, 2009
Revised November 1, 2010

*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.

Series 5200 Vinyl Single Hung Windows, Individual and Mulled, New Construction or Replacement Construction, 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 5200 window is a vinyl single hung window. The vinyl single hung windows evaluated in this report are individual, twin, and triple mulled, non-impact resistant, windows. This product evaluation report is for vinyl single hung windows based on the following tested constructions:

General Description:

System	Description	Label Rating
1	Series 5200 Vinyl Single Hung Windows; (O/X)	H-R50 44 x 72
2	Series 5200 Vinyl Single Hung Windows; Twin; (O/X.O/X)	Each Window: H-R50 44 x 72
3	Series 5200 Vinyl Single Hung Windows; Triple; (O/X.O/X.O/X)	Each Window: H-R50 44 x 72

Product Dimensions:

System	Overall Size	Operable Sash Size	Fixed Daylight Opening Size
1	44" x 72"	40 7/8" x 35 1/4"	39 1/16" x 32 5/8"
2	88" x 72"	Each: 40 7/8" x 35 1/4"	Each: 39 1/16" x 32 5/8"
3	132" x 72"	Each: 40 7/8" x 35 1/4"	Each: 39 1/16" x 32 5/8"

Glazing Description:

System	Glass Construction [1]	Glazing Method [2]
1	IG-1	GM-1
2	IG-1	GM-1
3	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: The fixed lite and the operable sash contain sealed insulating glass units. The sealed insulating glass units are comprised of two double strength ($\frac{1}{8}$ ") annealed glass lites separated by 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 active sash is exterior glazed and the fixed sash is interior glazed. The insulating glass units are set against Novaflex structural silicone backbedding. A rigid vinyl snap-in glazing bead secures the insulating glass units in place.

Frame Construction: The frame members are manufactured from extruded vinyl (PVC). The frame corners are mitered and thermally welded construction. The fixed meeting rail is secured to the frame jambs using molded rail anchors at each end. Each molded rail anchor is secured to the side jambs with two (2) screws and to the reinforcement in the fixed meeting rail with one (1) screw.

Mullion Construction (Systems 2 and 3): The mullion is a 1" x 3 $\frac{1}{8}$ " custom shaped aluminum tube. The window frame side jambs are secured to the mullion with No. 8 x 1 $\frac{1}{2}$ " screws spaced approximately 12 inches on center.

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 located in the lock rail, in the fixed meeting rail, in the bottom rail, and in the sash stiles. The reinforcement extends the length of the members.

System 2 and 3: Extruded aluminum reinforcement is located in the lock rail, in the fixed meeting rail, in the bottom rail, in the sash stiles, and in each mullion. The reinforcement extends the length of the members.

Hardware (each window):

- Composite cam locks; Two (2) required; Located at the lock rail
- Composite keeper; Two (2) required; Located at the fixed meeting rail
- Constant force balance; Two (2) required; One (1) located in each jamb
- Metal pivot bars; Two (2) required; Located at the bottom sash corners
- Plastic tilt latch; Two (2) required; Located at the top sash corners

Product Identification:

System 1: 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 5200 SH**; performance characteristics; the approved inspection agency (AAMA); and the applicable standard: AAMA/WDMA/CSA 101/I.S.2/A440-05.

Systems 2 and 3: A certification program label (AAMA) will be affixed to each window in the assembly. The certification program label includes the manufacturer's code name (**DY-1**); product name: **Series 5200 SH**; 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	72	± 50
2	88	72	± 50
3	132	72	± 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 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:

System 1:

Nailing Fin (New Construction): The wood wall framing members shall be minimum Spruce-Pine-Fir dimension lumber. The window shall be mounted to the wood wall framing members using the nailing fin of the window with minimum 2 3/8"x0.120" smooth shank nails. The fasteners shall be spaced approximately 1 inch from each corner and approximately 12 inches on center along each side jamb and approximately 14 inches on center along the head and the sill. The fasteners shall be long enough to penetrate a minimum of 1 ½ inches into the wall framing members.

Frame (Replacement Windows): The wood wall framing members shall be minimum Spruce-Pine-Fir dimension 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 ½" screws. Along each side jamb, a minimum of eight (8) fasteners are required, evenly spaced. Along the head, a minimum of six (6) fasteners are required, evenly spaced. The fasteners shall be long enough to penetrate a minimum of 1 ½ inches into the wall framing members.

System 2:

Nailing Fin (New Construction): The wood wall framing members shall be minimum Spruce-Pine-Fir dimension lumber. The window shall be mounted to the wood wall framing members using the nailing fin of the window with minimum 2 3/8"x0.120" smooth shank nails. The fasteners shall be spaced approximately 1 inch from each corner and approximately 6 inches on center along the perimeter of the window frame. An extruded aluminum mullion bracket (1 1/2" x 1 1/2" x 1 1/8") is required at each end of each mullion. The mullion bracket is secured to the extruded aluminum mullion with two (2) No. 10 x 5/8: screws. The mullion is secured to the wall framing with four (4) No. 12 screws. All fasteners shall be long enough to penetrate a minimum of 1 1/2 inches into the wall framing members.

Frame (Replacement Windows): The wood wall framing members shall be minimum Spruce-Pine-Fir dimension 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 1/2" screws. Along each side jamb, a minimum of ten (10) fasteners are required, evenly spaced. Along the head, a minimum of four (4) fasteners are required per window, evenly spaced. An extruded aluminum mullion bracket (1 1/2" x 1 1/2" x 1 1/8") is required at each end of each mullion. The mullion bracket is secured to the extruded aluminum mullion with two (2) No. 10 x 5/8: screws. The fasteners shall be long enough to penetrate a minimum of 1 1/2 inches into the wall framing members.

System 3:

Nailing Fin (New Construction): The wood wall framing members shall be minimum Spruce-Pine-Fir dimension lumber. The window shall be mounted to the wood wall framing members using the nailing fin of the window with minimum 2 3/8"x0.120" smooth shank nails. The fasteners shall be spaced approximately 3 inches from each corner and approximately 6 inches on center along the perimeter of the window frame. An extruded aluminum mullion bracket (1 1/2" x 1 1/2" x 1 1/8") is required at each end of each mullion. The mullion bracket is secured to the extruded aluminum mullion with two (2) No. 10 x 5/8: screws. The mullion is secured to the wall framing with four (4) No. 12 screws. All fasteners shall be long enough to penetrate a minimum of 1 1/2 inches into the wall framing members.

Frame (Replacement Windows): The wood wall framing members shall be minimum Spruce-Pine-Fir dimension 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 1/2" screws. Along each side jamb, a minimum of ten (10) fasteners are required, evenly spaced. Along the head, a minimum of seven (7) fasteners are required per window, evenly spaced. An extruded aluminum mullion bracket (1 1/2" x 1 1/2" x 1 1/8") is required at each end of each mullion. The mullion bracket is secured to the extruded aluminum mullion with two (2) No. 10 x 5/8: screws. The mullion is secured to the wall framing with four (4) No. 12 screws. The fasteners shall be long enough to penetrate a minimum of 1 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.