

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION WIN-271

Effective November 1, 2005

*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 3 years after the effective date.*

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 07-09 StormBreaker Plus Vinyl Double Hung Replacement Windows, Impact Resistant, manufactured by

Simonton Building Products, Inc.
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will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

Series 07-09 is a vinyl double hung replacement window. The vinyl double hung windows evaluated in this report include individual units and a twin unit, impact resistant windows. This product evaluation report is for a vinyl double hung window based on the following tested assemblies:

General Description:

System	Description	Label Rating
1	Individual Vinyl Double Hung Window; (X/X)	H-R65 37 x 76
2	Twin Mulled Double Hung Window; (X/X)/(X/X)	H-R50 75 x 76
3	Individual Vinyl Double Hung Window; (X/X)	H-R50 53 x 76

Product Dimensions:

System	Overall Size	Interior Sash Size	Exterior Sash Size
1	37 1/4" x 76 1/4"	33 7/8" x 37 1/2"	33" x 36 1/2"
2	74 7/8" x 76 3/8"	(2) 34" x 37 1/2"	(2) 33" x 36 1/2"
3	53" x 76"	49 3/4" x 37 1/4"	48 3/4" x 36 1/8"

Glazing Description:

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

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

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

PRODUCT DESCRIPTION (Continued)

Glazing Description Key:

- IG-1: Both sashes contain a sealed insulating glass unit. The sealed insulating glass unit is comprised of a laminated glass unit on the interior and a double strength ($\frac{1}{8}$ ") tempered glass lite on the exterior separated by a foam spacer system. The laminated glass unit is comprised of two double strength ($\frac{1}{8}$ ") annealed glass lites with a 0.090 inch PVB interlayer.
- IG-2: Both sashes contain a sealed insulating glass unit. The sealed insulating glass unit is comprised of a laminated glass unit on the interior and a $\frac{3}{16}$ " tempered glass lite on the exterior separated by a foam spacer system. The laminated glass unit is comprised of two double strength ($\frac{1}{8}$ ") annealed glass lites with a 0.100 inch PVB interlayer.

Glazing Method Key:

- GM-1: The insulating glass unit is set from the exterior against a glazing compound and secured with dual durometer snap-fit glazing beads.
- GM-2: The insulating glass unit is exterior glazed onto National Starch 939A glazing compound and secured with PVC glazing stops.

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

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

Reinforcement: Aluminum reinforcement is utilized in all of the exterior and interior sash members. The reinforcement extends the full length of the members.

System 1 (Type A9): Extruded aluminum reinforcement is utilized in all exterior sash stiles (Die #56111), interior sash stiles (Die #561090), top rail (Die #16107), exterior meeting rail (Die #56110), interior meeting rail (Die #60911) and bottom rail (Die #56109).

System 2 (Type A9): Extruded aluminum reinforcement is utilized in all exterior sash stiles (Die #56111), interior sash stiles (Die #561090), top rail (Die #16107), exterior meeting rail (Die #56110), interior meeting rail (Die #60911) and bottom rail (Die #56109). The mullion utilized an extruded aluminum reinforcement (Die #16991).

System 3 (Type E9): The bottom rail and interior sash stiles utilized a roll-formed steel reinforcement (Part #DH78/79). The exterior sash stiles and interior meeting rail utilized a roll-formed steel reinforcement (Part #DH75). The exterior meeting rail utilized steel reinforcement (Part #ST-439). Custom shaped extruded aluminum reinforcement is used in the interior meeting rail (Part #60911).

Mullion Construction (System 2): The window units in system 2 are mulled together using aluminum reinforced PVC member (Part #16991). Each window frame is secured to the mullion with #8 x 1" long screws located 7" from each end and 14" o.c. The head and sill of the units are also secured together with a 17 $\frac{1}{2}$ " long, 0.060" thick galvanized steel strap. The strap is fastened to the frames with three #8 x $\frac{1}{2}$ " long screws per frame, per end. Two 2 $\frac{1}{4}$ " long steel angles with 0.060" thick legs are riveted together through the mullion with two $\frac{1}{4}$ " diameter rivets at each end. A base plate connected to the mullion is anchored to the wood framing with four (4) #8 x 1 $\frac{1}{2}$ " long screws per plate. The window frames are bedded in sealant to the exterior leg of the mullion.

Product Identification: A certification program label will be affixed to the window. The certification program label includes the manufacturer's name, performance characteristics and approved inspection agency to indicate compliance with the requirements of AAMA/NWWDA 101/I.S.2 and compliance with AAMA 506-2000. The label indicates the manufacturer is Simonton.

LIMITATIONS

Design pressures:

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressures (psf)
1	37	76	± 65
2	75	76	± 50
3	53	76	± 50

Impact Resistance: These window assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in both the **Inland I zone** and the **Seaward zone**. The window assemblies passed Missile Level D specified in ASTM E 1996-01. 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.

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. The wood wall framing members shall be minimum Spruce-Pine-Fir lumber.

Installation: The replacement windows shall be fastened to the wood framing members as follows:

Individual Unit (System 1)

Head: one #10 x 2 ½" long screws located 6" from each end (2 total).

Jambs: one #10 x 2 ½" long screws located 6" from each end, one #10 x 2" long screws located 3" above and below the midspan of the jambs, and one #8 x 2 ½" long screw through the tilt latch U-channel reinforcement (10 fasteners total).

Individual Unit (System 3)

Head: one #12 x 2 ½" long screws located 5" from each end and one at the midspan (3 total).

Jambs: one #12 x 2 ½" long screws located 5" from each end and two at the midspan of each jamb (4 fasteners for each jamb).

Mulled Units (System 2)

Head: one #10 x 2 ½" long screws located 6" from each end and 6" from each side of the mullion (4 total).

Jambs: one #10 x 2 ½" long screws located 6" from each end, one #10 x 2" long screws located 3" above and below the midspan of the jambs, and one #8 x 2 ½" long screw through the tilt latch U-channel reinforcement (10 fasteners total).

Mullion Plates: At the head and sill, a base plate connected to the mullions is anchored to the wood framing with four (4) #8 x 1 ½" long screws per plate (8 total).

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.