

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

Effective November 1, 2011

WIN-1474

*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 **February 2015**.*

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 350 Vinyl Double Hung Windows, One Wide, New and Replacement Construction, Non-Impact Resistant, manufactured by

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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 350 double hung windows specified in this report are vinyl double hung windows. This evaluation report includes one wide double hung window units. The vinyl double hung windows may be installed as new construction windows or as replacement windows. This report includes non-impact resistant vinyl double hung windows based on the following tested configurations:

General Description:

System	Description	Label Rating
1	Series 350; One Wide Vinyl Double Hung Windows; Single Cam Lock; Fin Install; (X/X)	H-LC40 54 x 78
2	Series 350; One Wide Vinyl Double Hung Windows; Single Cam Lock; Fin Install; (X/X)	H-LC30 54 x 78
3	Series 350; One Wide Vinyl Double Hung Windows; Single Auto Lock; Frame Install; (X/X)	H-LC40 54 x 78
4	Series 350; One Wide Vinyl Double Hung Windows; Single Cam Lock; Fin Install; (X/X)	H-LC40 40 x 78
5	Series 350; One Wide Vinyl Double Hung Windows; Single Cam Lock; Fin Install; (X/X)	H-LC75 40 x 63
6	Series 350; One Wide Vinyl Double Hung Windows; Single Cam Lock; Fin Frame; (X/X)	H-LC55 40 x 63

Product Dimensions:

System	Overall Size	Top Sash Size	Bottom Sash Size
1	54" x 78"	51.446" x 38.930"	51.446" x 38.930"
2	54" x 78"	51.446" x 38.930"	51.446" x 38.930"
3	54" x 78"	51.446" x 38.930"	51.446" x 38.930"
4	40" x 78"	37.45" x 38.93"	37.45" x 38.93"
5	40" x 63"	37.446" x 31.430"	37.446" x 31.430"
6	40" x 63"	37.446" x 31.430"	37.446" x 31.430"

Glazing Description:

System	Glass Construction ¹	Glazing Method ²
1	IG-1	GM-1
2	IG-2	GM-1
3	IG-1	GM-1
4	IG-2	GM-1
5	IG-1	GM-1
6	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 sashes contain sealed insulating glass units. The insulating glass units are comprised of two double strength ($\frac{1}{8}$ ") annealed glass lites separated by a metal reinforced butyl spacer system. The glass thickness and type used in the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

IG-2: Both sashes contain sealed insulating glass units. The insulating glass units are comprised of two single strength ($\frac{3}{32}$ ") annealed glass lites separated by a metal reinforced butyl spacer system. The glass thickness and type used in the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

Glazing Method Key:

GM-1: The insulating glass units are exterior glazed against polyurethane reactive sealant. The insulating glass units are secured with snap-in vinyl glazing beads.

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

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

Reinforcement:

Systems 1, 3, and 5: Extruded aluminum reinforcement is utilized in the upper sash interlock, the lower sash interlock, the lower sash stile, and the upper sash stile. The reinforcement extends the full length of the members.

Systems 2, 4, and 6: Extruded aluminum reinforcement is utilized in the upper sash interlock and the lower sash interlock. The reinforcement extends the full length of the members.

Hardware:

- Helical tensile spring and pulley balances; Two (2) required; Located in each side jamb.
- Positive action cam locks with strikes or Autolocks with detent and strikes; One (1) required; Located at the center of the meeting rail.

Product Identification: A certification program label (WDMA) will be affixed to the window. The certification program label includes the manufacturer's name; the name of the product: **350 Series Double Hung Annealed**; performance characteristics; the approved inspection agency (WDMA); and the applicable standards: ANSI/AAMA/NWDA 101/I.S.2-97 and AAMA/WDMA/CSA 101/I.S.2/A440-05.

LIMITATIONS

Design pressures:

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressures (psf)
1	54	78	± 40
2	54	78	± 30
3	54	78	± 40
4	40	78	± 40
5	40	63	± 75
6	40	63	± 55

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

Installation:

Systems 1, 2, 4, 5, 6 (Fin Installation): The wood wall framing members shall be minimum Southern Yellow Pine dimension lumber. The windows shall be mounted to the wood wall framing members using the nailing fin of the window with minimum No. 10 screws with 1" diameter washers. The fasteners shall be spaced approximately 6 inches from each corner and approximately 4 inches on center along the perimeter of the window. The fasteners shall be long enough to penetrate a minimum of 1 ½ inches into the wood wall framing.

System 3 (Frame Installation): The wood wall framing members shall be minimum Southern Yellow Pine dimension lumber. The windows shall be mounted to the wood wall framing members using the frame of the window with minimum No. 10 x 2" screws. Along the head and sill, the fasteners shall be spaced approximately 6 inches from each corner and approximately 21 inches on center. Along each side jamb, the fasteners shall be spaced approximately 6 inches from each corner and approximately 22 inches on center. The fasteners shall be long enough to penetrate a minimum of 1 ½ inches into the wood 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.