

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

Effective November 1, 2011

WIN-1473

*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 Single Hung Windows, Three Wide, and Twin Single Hung Windows with a Fixed Window, 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 single hung windows specified in this report are vinyl single hung windows. This evaluation report includes three wide single hung window units and twin single hung windows with a fixed window. The vinyl single hung windows may be installed as new construction windows or as replacement windows. This report includes non-impact resistant vinyl single hung windows and fixed windows based on the following tested configurations:

General Description:

System	Description	Label Rating
1	Series 350; Three Wide Vinyl Single Hung Windows; Equal Window; Fin Install; (O/X.O/X.O/X)	H-LC55 121 x 78
2	Series 350; Three Wide Vinyl Single Hung Windows; Equal Window; Fin Install; (O/X.O/X.O/X)	H-LC55 121 x 78
3	Series 350; Three Wide Vinyl Single Hung Windows; Platform Window; Fin Install (O/X.O/X.O/X)	H-LC25 146 x 78
4	Series 350; Three Wide Vinyl Single Hung Windows; Platform Window; Frame Install; (O/X.O/X.O/X)	H-LC25 146 x 78
5	Series 350; Three Wide Vinyl Single Hung Windows; Platform Window; Fin Install; (O/X.O/X.O/X)	H-LC25 146 x 78
6	Series 350; Three Wide Vinyl Single Hung Windows; Contemporary Window; Fin Install; (O/X.O.O/X)	H-LC25 122 x 74
7	Series 350; Three Wide Vinyl Single Hung Windows; Contemporary Window; Fin Install; (O/X.O.O/X)	H-LC25 122 x 74

Product Dimensions:

System	Overall Size	Active Sash Size	Fixed Daylight Opening Size	Fixed Window Daylight Opening Size
1	121" x 78"	Three: 37" x 39"	33.625" x 35.438"	N/A
2	121" x 78"	Three: 37" x 39"	33.625" x 35.438"	N/A
3	146" x 78"	Two: 51.45" x 38.93" One: 34.446" x 39"	Two: 47.625" x 35.438" One: 30.625" x 35.438"	N/A
4	146" x 78"	Two: 51.45" x 38.93" One: 34.446" x 39"	Two: 47.625" x 35.438" One: 30.625" x 35.438"	N/A
5	146" x 78"	Two: 51.45" x 38.93" One: 34.446" x 39"	Two: 47.625" x 35.438" One: 30.625" x 35.438"	N/A
6	122" x 74"	Two: 17" x 37"	Two: 13.625" x 33.438"	77.063" x 70.063"
7	122" x 74"	Two: 17" x 37"	Two: 13.625" x 33.438"	77.063" x 70.063"

Glazing Description:

System	Glass Construction ¹	Glazing Method ²
1	IG-1	GM-1
2, 3	IG-2	GM-1
4	IG-1 and IG-2	GM-2
5	IG-2	GM-1
6	Single Hung: IG-2 Fixed Window: IG-3	GM-1
7	Single Hung: IG-2 Fixed Window: IG-3	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: 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: 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.

IG-3: Sealed insulating glass units. The insulating glass units are comprised of two $\frac{3}{16}$ " 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.

GM-2: The insulating glass units are exterior glazed against acrylic glazing tape. 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 5, 7: Extruded aluminum reinforcement is utilized in the sash interlock, the fixed meeting rail, and the lower stiles. The reinforcement extends the full length of the members.

Systems 1, 2, 3, 4, 6: Extruded aluminum reinforcement is utilized in the sash interlock and the fixed meeting rail. The reinforcement extends the full length of the members.

Hardware (each single hung window):

- Helical tensile spring and pulley balances; Two (2) required; Located in each side jamb.
- Positive action cam lock and strike or spring loaded Autolock 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 Single 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	121	78	± 55
2	121	78	± 55
3	146	78	± 25
4	146	78	± 25
5	146	78	± 25
6	122	74	± 25
7	122	74	± 25

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, 6, and 7 (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 x 2" screws with $\frac{1}{2}$ inch diameter washers. Along the head and sill, the fasteners shall be spaced approximately 6 inches from each corner and 6 inches on either side of the transition bar. Along each side jamb, the fasteners are spaced approximately 6 inches from each corner, 21 inches from the head, 3 inches above the meeting rail, and 5 inches below the meeting rail. The fasteners shall be long enough to penetrate a minimum of $1\frac{1}{2}$ 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 with $\frac{1}{2}$ inch diameter washers. Along the head and sill, the fasteners shall be spaced approximately 6 inches from each corner, 6 inches on either side of the transition bar, and one at the mid-span. Along each side jamb, the fasteners are spaced approximately 6 inches from each corner, 21 inches from the head, 3 inches above the meeting rail, and 5 inches below the meeting rail. The fasteners shall be long enough to penetrate a minimum of $1\frac{1}{2}$ inches into the wood wall framing.

Systems 5 (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 x 2" screws with $\frac{1}{2}$ inch diameter washers. Along the head and sill, the fasteners shall be spaced approximately $4\frac{1}{2}$ inches from each corner and $15\frac{1}{2}$ inches on center. Along each side jamb, the fasteners are spaced approximately $4\frac{1}{2}$ inches from each corner and $10\frac{1}{2}$ inches on center. In addition, fasteners are located 3 inches on either side of the transition bar and 5 inches below the meeting rail. The fasteners shall be long enough to penetrate a minimum of $1\frac{1}{2}$ 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.