

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

Effective August 1, 2009

WIN-1152

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 **October 2012**.

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.

Builders Vinyl Twin Fixed Windows over Twin Single Hung Windows (Mulled), Non-impact Resistant, manufactured by:

JELD-WEN Windows and Doors
3737 Lakeport Blvd.
Klamath Falls, Oregon 97601
(541) 882-3451

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 Builders Vinyl window assembly includes twin fixed windows over twin single hung windows, mulled together. The window assembly evaluated in this report is non-impact resistant. This product evaluation report is for a vinyl window assembly mulled together based on the following tested construction:

General Description:

| System | Description | Label Rating |
|--------|---|----------------------|
| 1 | Builders Vinyl Twin PW/SH; (O.O/O/X.O/X) | H-R50 73 x 99 (Mull) |

Product Dimensions: Individual Fixed – 36" x 24" Individual Single Hung – 36" x 74"

| System | Overall Size | Operable Sash Size | Fixed Daylight Opening Size |
|--------|-------------------|--------------------|---|
| 1 | 72 1/2" x 98 1/2" | 33 7/8" x 36 7/8" | 33 1/4" x 34 5/8" Single Hung 31 7/8" x 19 7/8" Fixed Window |

Glazing Description:

| System | Glass Construction ¹ | Glazing Method ² |
|--------|---------------------------------|-----------------------------|
| 1 | IG-1 | GM-1 |

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

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

Glass Construction Key:

IG-1: The windows contain sealed insulating glass units. The sealed insulating glass units are comprised of two sheets of $\frac{3}{16}$ " annealed glass separated by a stainless steel spacer system. The glass thickness and type used in the insulating glass units of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

Glazing Method Description Key:

GM-1: The insulated glass units are exterior glazed. The insulating glass units are glazed using a structural sealant and a vinyl snap-in glazing bead.

Frame Construction: The frame members are constructed of polyvinyl chloride (PVC). The frame corners are mitered and welded. The fixed meeting rails are fastened at each end with two (2) No. 8 x 2" screws passing through the jambs into screw ports in the fixed meeting rail.

Sash Construction (Single Hung only): The sash members are manufactured from extruded vinyl (PVC). The sash corners are mitered and thermally welded construction. A sash stop is snap-fit into each frame jamb channel at the head to limit sash travel.

Sill Extender (Single Hung only): A full length sill extender is snap-fit into the frame sill channel and sealed with silicone sealant.

Reinforcement (Single Hung only): The fixed meeting rail, sash meeting rail, and intermediate jamb contain custom-shaped galvanized steel reinforcement. The reinforcement shall be of sufficient length to support each member.

Mull Construction: The frames are joined on both the interior and exterior sides using a full length extruded vinyl clip snap-fit into the accessory groove of each frame. The interior accessory grooves are sealed to the clip using silicone sealant. The ends of the mullion hollows are sealed with compressible closed cell foam blocks. The mullion ends on the exterior side of the nailing flange are covered and sealed with an extruded vinyl cap and silicone sealant. The mullion ends on the interior side of the nailing flange are covered and sealed with flashing tape and silicone sealant. The joint between vertical and horizontal mullions on the exterior is sealed with silicone sealant.

Mull Reinforcement: All mullions use a $\frac{1}{4}$ " x 2" steel bar installed full length as reinforcement. The horizontal bar is fastened to the single hung frame head using a continuous length of foam glazing tape and No. 10 x $\frac{1}{2}$ " screws passing through the reinforcement into the head spaced singly on 8 inch centers and at 2 $\frac{1}{2}$ inches from center on both sides, and in pairs at 2 inches from each end. The vertical reinforcements are fastened on one side to the frame jamb using a continuous length of foam glazing tape and No. 10 x $\frac{1}{2}$ " screws passing through the reinforcement into the jamb. The screws are installed singly on 8 inch centers, and in pairs 2 inches from each end. The interior edge of all reinforcements and the reinforcement side opposite the glazing tape is sealed to the mullion hollow with silicone sealant.

Hardware (Single Hung only):

- Metal cam lock with keepers; One (1) required; Located at the midspan of the meeting rail.
- Block and tackle balance with locking tilt shoes; Two (2) required; Located in each side jamb.
- Metal pivot bar; Two (2) required; Located on the bottom rail, one at each end.
- Tilt latch; Two (2) required; Located on the lock rail, one at each end.

Product Identification: A certification program label (AAMA) will be affixed to the window. The certification program label includes the manufacturer's code name (**JW-11**); product name: **Builders Vinyl Tilt SH Combo (Mull)**; performance characteristics; the approved inspection agency (AAMA); and the applicable standards: AAMA/WDMA/CSA 101/I.S.2/A440-05.

LIMITATIONS

Design pressures (DP):

| System | Maximum Width (in.) | Maximum Height (in.) | Design Pressure (psf) |
|--------|---------------------|----------------------|-----------------------|
| 1 | 72 1/2 | 98 1/2 | ± 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 protection 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 prepared and installed in accordance with the manufacturers recommended installation instructions. Detailed installation instructions and drawings are available from the manufacturer.

Installation: The window shall be fastened to minimum Southern Yellow Pine dimension lumber using the nailing fin of the window. There will be shims placed approximately 6 inches from each corner and approximately 16 inches on center thereafter and there will be fasteners passing through the window frame nailing fin, the shims, and into the wall framing. The nailing fin is secured to the wall framing with minimum 12 gauge galvanized roofing nails. The fasteners shall be spaced approximately 4 inches from each corner and on center along the perimeter of the window. In addition, a total of eight (8) No. 8 screws are installed at the perimeter end of each reinforced mullion. The screws are spaced symmetrically about the centerline of the mullion at 1 inch, 5 inches, 9 inches, and 13 inches. All 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.