

TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
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PRODUCT EVALUATION WIN-1494

Effective December 1, 2011

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 **January 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 4650 AL Vinyl Double Hung Replacement Windows, Non-impact Resistant, manufactured by:

MGM Industries
287 Freehill Road
Hendersonville, Tennessee 37075
Telephone: (813) 659-9197

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions, the approved drawings referenced in this evaluation report, and this product evaluation.

PRODUCT DESCRIPTION

The Series 4650 AL window is a vinyl double hung window. The vinyl double hung window is installed as a replacement window. The vinyl double hung windows evaluated in this report are non-impact resistant windows. This product evaluation report is for a vinyl double hung replacement window based on the following tested construction:

General Description:

System	Description	Label Rating
1	Series 4650 AL Vinyl Double Hung Replacement Window; (X/X)	LC-PG50 54 x 76-H

Product Dimensions:

System	Overall Size	Top Sash Size	Bottom Sash Size
1	54" x 76"	50 ¹ / ₁₆ " x 36 ¹ / ₁₆ "	51 ¹ / ₁₆ " x 37 ¹ / ₁₆ "

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 Key" for the glazing method description.

Glass Construction Key:

IG-1: Both sashes contain sealed insulating glass units. The sealed insulating glass units are comprised of two double strength ($\frac{1}{8}$ ") annealed glass lites separated by a rectangular shaped steel spacer system that is embedded in sealant. 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 insulating glass unit is exterior glazed against silicone sealant. A rigid vinyl (PVC) snap-in glazing bead secures the insulating glass unit in place.

Frame Construction: The frame members are manufactured from extruded vinyl (PVC). The frame corners are mitered and welded construction. An extruded aluminum insert is located in the sill.

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

Reinforcement: All sash members contain custom shaped, formed steel reinforcement. The reinforcement extends the length of the members.

Hardware:

- Locking metal cam lock and keeper; Two (2) required; Located on the lock rail with corresponding metal keepers at the exterior stile.
- Metal surface mounted tilt latch with interlocking molded plastic jamb clip; Two (2) required; Located at the top corners of the interior sash, mating clips at each jamb.
- Plastic flush mounted tilt latch; Two (2) required; Located at the top corners of the exterior sash.
- Constant force balance system with locking pivot shoes; Four (4) required; Two (2) per jamb.
- Metal interlocking tilt pin; Four (4) required; Located at the bottom corners of each sash.

Product Identification: A certification program label (AAMA) will be affixed to the window. The certification program label includes the manufacturer's code name (**MGM-1**); the product name: **Series 4650 DH**; performance characteristics; the approved inspection agency (AAMA); and the applicable standards: AAMA/WDMA/CSA 101/I.S.2/A440-08.

LIMITATIONS

Design pressures:

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressures (psf)
1	54	76	± 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: 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 and the design drawings referenced in this evaluation report. Detailed installation instructions and drawings are available from the manufacturer.

Design Drawings: The window shall be installed in accordance with Drawing No. TX-4131, "Series 4650-AL Extruded Vinyl Double Hung Window 'Non-Impact'," sheets 1 through 3 of 3, dated July 5, 2011, signed, sealed, and dated July 6, 2011 by Lyndon F. Schmidt, PE. The stated drawings will be referred to as the approved drawings in this evaluation report.

Wall Framing: The windows shall be secured to minimum Southern Yellow Pine dimension lumber.

Installation: The windows shall be secured to the wall framing as specified on the approved drawings. The fasteners shall be long enough to penetrate a minimum of 1 ½ inches into the wall framing.

Note: The manufacturer's installation instructions and the approved design drawings 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.