

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

Effective Date: June 1, 2013

MU-19

*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 2017**.*

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.

Mulled Window Assemblies for Vinyl Windows, Non-impact Resistant and Impact Resistant,
manufactured by:

Showcase Custom Vinyl Windows and Doors
A product of ENLIGHT Industries, LLC
1702 Cullen Blvd.
Houston, Texas 77023
Telephone: (713) 926-8500

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

This evaluation report is for mulled window assemblies using vinyl windows manufactured by Showcase Custom Vinyl Windows and Doors. The mulled window assemblies evaluated in this report are for non-impact resistant and impact resistant windows.

The mulled assembly consists of individual window units that are secured to Showcase Custom Vinyl Windows and Doors mullions described in this evaluation report. The mullions can be installed vertically (for side by side units) and horizontally (for stacked units). The mullion is secured directly to the rough opening of the window.

The frames of the individual window units are secured to the extruded aluminum mullions using minimum No. 10-24 x $\frac{3}{4}$ " screws. Minimum 1" x 5.38" x $\frac{3}{32}$ " steel straps are used to secure the aluminum mullions to the wall framing. The mullion straps are secured to the mullions with two (2) No. 10-24 x 1" Gr. 5 screws.

This evaluation report contains mulled window assemblies using individual vinyl window products manufactured by Showcase Custom Vinyl Windows and Doors that are currently listed in Texas Department of Insurance (TDI) product evaluation reports.

Mullion Components:

Mullion: Aluminum mullion. Manufactured from 6063-T5 aluminum. The outside dimensions are 1.00" x 3.38". The minimum nominal wall thickness is 0.13".

Mullion Components (Continued):

Steel Strap: Manufactured from galvanized steel. The dimensions are 1.00" x 5.38" x 0.090".

LIMITATIONS

Design Drawings: The mulled window assembly shall be constructed and installed in accordance with the following design drawing:

- Drawing No. SCV003, sheets 1 through 3 of 3, titled "Aluminum Mullion," dated November 07, 2010, signed, sealed, and dated by Alexis Spyrou, PE. on January 19, 2012. The stated drawings will be referred to as "Approved Drawings" in this evaluation report. A sealed copy of the approved drawings shall be available at the job site.

Maximum Sizes: The height and width of each individual window in the mulled assembly shall not exceed the maximum allowable height and width specified on the certification program labels for the individual windows.

Design Pressure Rating: The design pressure rating for the mulled window assembly is dependent on the mulled assembly rating and the design pressure rating for the individual windows in the mulled assembly.

The following procedure should be used to determine the design pressure rating for the mulled window assembly:

1. Determine the height and the width of the individual window units for the mulled window assembly. Refer to the mullion configuration sketches on the approved drawings for the mullion span. NOTE: In no case shall the maximum allowable dimensions of the individual windows, as specified on the certification program labels and in the TDI product evaluation reports, exceed the window dimensions in the approved drawings.
2. Using the approved drawings, select the appropriate table. In the first column of the table, locate the height of the individual window units. In the first row of the table, locate the width of the individual window units. At the intersection of the row containing the individual window heights and the column containing individual window width, read the mullion load rating (in PSF).
3. Review the design pressure rating on the certification program labels and in the TDI product evaluation report for each individual window of the mulled assembly.
4. If the design pressure rating for each individual window of the mulled assembly is greater than the mullion load rating determined from the table in the approved drawings (in Step 2), then the design pressure rating of the mulled assembly is the design pressure capacity determined from the table in the approved drawings.
5. If the design pressure rating for any of the individual windows is less than the mullion load rating determined from the table in the approved drawings (in Step 2), then the design pressure rating of the mulled assembly shall be the design pressure rating of the lowest rated individual window in the assembly.

Impact Resistance: The mullions can be used with either non-impact resistant or impact resistant windows. If the mullions are used with non-impact resistant windows, then the mulled window assemblies will need to be protected with an impact protective system when installed in areas where windborne debris protection is required. If the mullions are used with impact resistant windows, then the mulled window assemblies will not need to be protected with an impact protective system. Refer to the TDI

evaluation reports for each of the windows in the mulled assembly to determine the locations where the mulled window assemblies can be used (ex. Inland I zone only or Inland I and Seaward zones).

Product Identification: A certification program label will be affixed to each individual window of the mulled assembly. Refer to the TDI evaluation report for each individual window in the mulled assembly for the information that must be specified on the certification program label. **Note:** The certification program label is for the performance characteristics of the individual windows in the mulled assembly. The design pressure rating for the mulled assembly is as specified in the Limitations Section of this evaluation report.

INSTALLATION INSTRUCTIONS

General: The mulled window assembly shall be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this evaluation report. Detailed drawings and installation instructions are available from the manufacturer.

Attachment of Window Frames to Mullions: The window frames shall be anchored to the aluminum mullions with minimum No. 10-24 x $\frac{3}{4}$ " Gr. 2 screws. The fasteners shall penetrate through the window frame and into the aluminum mullion. The fasteners shall be long enough such that a minimum of three (3) threads protrude through the wall of the aluminum mullion. The fasteners shall be spaced a maximum of 12 inches from each corner and a maximum of 12 inches on center.

Attachment of Mulled Assembly to Wall Framing: The dimension lumber required for the wall framing shall be as specified in the product evaluation reports for the individual windows. The mulled window assembly shall be secured to the wall framing using the type, size, quantity, and spacing of fasteners as specified in the TDI evaluation reports for the individual windows. As a point of reference for locating fasteners at window corners, where a window unit joins with a mullion shall be considered a corner location for a window.

Attachment of Mullions to Wall Framing: The mullions shall be secured to the wood wall framing using aluminum straps. The dimension lumber required for the wall framing shall be as specified in the product evaluation reports for the individual windows. The aluminum straps shall be secured to the aluminum mullions with two (2) No. 10-24 x 1" Gr. 5 self-drilling screws. The aluminum straps are secured to the wall framing with two (2) No. 10 wood screws. The screws shall be long enough to penetrate a minimum of $1\frac{1}{2}$ inches into the wall framing. Refer to the approved drawings for more information.

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.