

Product Evaluation

MU38 | 0621

Engineering Services Program

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 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.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: MU-38

Effective Date: June 1, 2021

Re-evaluation Date: June 2025

Product Name: Sitrine or W-5500, Aluminum Clad Wood Casement/Awning Window Mullion Assemblies, Impact Resistant

Manufacturer: JELD-WEN Windows & Doors
811 Factory St
Hawkins, WI 54530
(800) 535-3936

General Description:

This evaluation report is for mulled windows assemblies using extruded aluminum clad wood casement and awning windows manufactured by JELD-WEN Windows & Doors.

The windows are mulled together using either aluminum or wood mullions.

The mulled window assemblies evaluated in this report are for impact resistant and non-impact resistant windows manufactured by JELD-WEN Windows & Doors and currently listed in TDI product evaluation reports.

Mullion Components:

- **1/4" Structural Aluminum (6063-T5).** The dimensions are shown on the approved drawings.
- **3/4" Spread Mullion.** Manufactured from wood. The dimensions are shown on the approved drawings.
- **1" Spread Mullion:** Manufactured from wood. The dimensions are shown on the approved drawings.
- **2" Spread Mullion:** Manufactured from wood. The dimensions are shown on the approved drawings.
- **3" Spread Mullion:** Manufactured from wood. The dimensions are shown on the approved drawings.
- **4" Spread Mullion:** Manufactured from wood. The dimensions are shown on the approved drawings.

Fabrication and Assembly: The mulled assembly may be mulled together at the factory and shipped as a complete assembly or they may be mulled together at the job site.

Design Drawings:

Construct and install the mulled assembly in accordance with the following Jeld-Wen design drawings based on the configuration of the mulled assembly:

- Drawing No. JW047; sheets 1 through 24 of 24; titled "Siteline Aluminum Clad Wood Casement/Awning Mullion Assemblies;" dated July 8, 2020; revised January 6, 2021; signed and sealed by Hermes F. Norero, P.E. on March 19, 2021.
- Drawing No. NG/4500 sheet 1 of 1 titled "Siteline Clad Casement Reinforced Mullion Anchor Plate" dated December 12, 2014.

This evaluation report will refer to the stated drawings as "Approved Drawings."

Maintain a copy of the approved drawings at the job site.

Maximum Window Sizes:

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

The maximum allowable dimensions for windows in the mulled assembly must be as specified on the approved drawings.

Design Pressure Rating:

The design pressure rating for the mulled assembly is dependent on the mullion load rating based on the mullion span and the dimensions of the individual windows in the mulled assembly, and the design pressure rating for the individual windows in the mulled assembly.

Refer to the approved drawings to determine the mullion load rating for the mulled assembly based on the configuration of the mulled assembly.

Use the following procedure to determine the design pressure rating for the mulled window assembly:

1. Determine the tributary width and the mullion span for the mulled assembly. Refer to the mullion configuration sketches on the approved drawings for the mullion span and the tributary width. **NOTE:** The maximum allowable dimensions of the individual windows must not exceed the dimensions in the approved drawings as specified on the certification program labels and in the TDI product evaluation reports.
2. Using the approved drawings, locate the row with the mullion span. Locate the column with the tributary width. Read the mullion load rating (psf) at the intersection of these rows.
3. Review the design pressure rating on the certification program label 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 design pressure rating for the mullions determined from the approved drawings, 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 design pressure rating determined from the approved drawings, then the design pressure rating of the mulled assembly must be the design pressure rating of the lowest rated individual window in the assembly.

Impact Resistance:

Mullions are approved for use in Wind Zone 3 or less without impact resistant covering.

Use the mullions with either non-impact resistant or impact resistant windows.

If using mullions with non-impact resistant windows, then protect the mulled window assemblies with an impact protective system when installing the product in areas that require windborne debris protection.

If using mullions with impact resistant windows, then the mulled window assemblies will not require protection 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.

Product Identification:

Each individual window of the mulled assembly will have an attached certification program label.

Refer to each individual window's TDI evaluation report for the information the certification program label should include.

NOTE: The certification program label is for the performance characteristics of the individual windows in the mulled assembly and not for the mulled assembly. The Design Pressure Rating section of this evaluation report specifies how the design pressure rating for the mulled assembly is determined.

Installation:

General: Install the mulled assembly 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: Anchor the window frames to the wood/aluminum mullion with fasteners as specified in the approved drawings. The spacing and required penetration into the mullions of the fasteners is as specified on the approved drawings.

Attachment of Mulled Assembly to Wall Framing: Wall framing requirements are as specified on either the TDI product evaluation reports for the windows or the approved drawings. Secure the mulled assembly to the wall framing using the type, size, quantity, and spacing of fasteners as specified in the TDI evaluation reports for the individual windows. Where a window unit joins with a mullion use a point of reference for locating fasteners at window corners.

Attachment of Mullions to Wall Framing: Secure the mullions to the wall framing with the appropriate anchor clip as shown on the approved drawings. Refer to the approved drawings for the attachment of the mullions to the wall framing.

Attachment of Mullions to Mullions: Secure the mullions to other mullions using the appropriate anchor clip as shown on the approved drawings. Refer to the approved drawings for securing the mullions together.

Note: Keep the manufacturer's installation instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.