

## Product Evaluation

MU22 | 1119

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-22

**Effective Date:** November 1, 2019

**Re-evaluation Date:** November 2023

**Product Name:** Mullied Window Assemblies for Vinyl Windows using 10300085 Aluminum Mullions, Impact and Non-Impact Resistant

**Manufacturer:** Window Mart  
5760 Albert Pike  
Royal, AR 71968  
(888) 283-6278

### General Description:

This evaluation report is for mullied windows using 10300085 aluminum mullions manufactured by Window Mart.

The mullied window assemblies evaluated in this report are for impact resistant and non-impact resistant windows manufactured by Window Mart and listed in TDI evaluation reports.

### Mullion Configurations:

This evaluation report includes the following mullion configurations:

**Mullion – Non-reinforced.** Used for mulling together windows either vertically (windows side-by-side) or horizontally (windows stacked).

**T Mullion – Non-reinforced.** Horizontal mullion that is anchored to a vertical mullion. Used for mulling a transom to a mullied window assembly.

**Mullion Configurations (continued):**

**X Mullion- Non-reinforced.** Vertical mullion with two horizontal mullions anchored to it. Used for mulling two windows stacked to another assembly of two windows stacked.

**Mullion- Reinforced.** Used for mulling together windows either vertically (windows side-by-side) or horizontally (windows stacked).

**T Mullion – Reinforced.** Horizontal mullion that is anchored to a vertical mullion. Used for mulling a transom to a mullied window assembly.

**X Mullion- Reinforced.** Vertical mullion with two horizontal mullions anchored to it. Used for mulling two windows stacked to another assembly of two windows stacked.

**Mullion Components:**

**Mullion:** Manufactured from 6005-T5 aluminum; 0.075" thick; the dimensions are specified on the approved drawing.

**Mullion Clip:** Manufactured from 6063-T5 aluminum, 0.125" thick; the dimensions are specified on the approved drawing.

**Steel Mullion Bracket:** Manufactured from 15-gauge galvanized steel; the dimensions are specified on the approved drawing.

**Angle Clip:** Manufactured from 6005-T5 aluminum; 0.093" thick; the dimensions are specified on the approved drawing.

**Mullion Reinforcement:** Steel reinforcement; 0.25" thick; the dimensions are specified on the approved drawing.

**Limitations:**

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

**Design Drawings:**

Construct and install the mullied assembly in accordance with one or more of the design drawings based on the configuration of the mullied assembly:

- Drawing No. 08-01920, sheets 1 through 4 of 4, titled "10300085 Aluminum Mullion Non-Reinforced LMI Wind Zone 3," dated February 12, 2013. Signed and sealed by Luis R. Lomas, P.E. on August 1, 2019.

**Design Drawings (continued):**

- Drawing No. 08-01921, sheets 1 through 4 of 4, titled "10300085 Aluminum T Mullion Non-Reinforced LMI Wind Zone 3," dated February 12, 2013. Signed and sealed by Luis R. Lomas, P.E. on August 1, 2019.
- Drawing No. 08-01922, sheets 1 through 4 of 4, titled "10300085 Aluminum X Mullion Non-Reinforced LMI Wind Zone 3," dated February 12, 2013. Signed and sealed by Luis R. Lomas, P.E. on August 1, 2019.
- Drawing No. 08-01923, sheets 1 through 4 of 4, titled "10300085 Aluminum Mullion Reinforced LMI Wind Zone 3," dated February 13, 2013. Signed and sealed by Luis R. Lomas, P.E. on August 1, 2019.
- Drawing No. 08-01924, sheets 1 through 4 of 4, titled "10300085 Aluminum T Mullion Reinforced LMI Wind Zone 3," dated February 13, 2013. Signed and sealed by Luis R. Lomas, P.E. on August 1, 2019.
- Drawing No. 08-01925, sheets 1 through 4 of 4, titled "10300085 Aluminum X Mullion Reinforced LMI Wind Zone 3," dated February 13, 2013. Signed and sealed by Luis R. Lomas, P.E. on August 1, 2019.

This evaluation report will refer to the stated drawings to 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, 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 mullied window assembly:

1. Determine design pressure rating for the mullion using the Design Pressure Rating charts in the approved drawings. **NOTE:** In no case must the maximum allowable dimensions of the individual windows, as specified on the certification program labels and in the TDI product evaluation reports, exceed the dimensions in the approved drawings.
2. Review the design pressure rating on the certification program label and in the TDI product evaluation report for each individual window of the mullied assembly.
3. If the design pressure rating for each individual window of the mullied assembly is greater than the design pressure rating for the mullions determined from the approved drawings, then the design pressure rating of the mullied assembly is the design pressure capacity determined from the table in the approved drawings.
4. 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 mullied assembly must be the design pressure rating of the lowest rated individual window in the assembly.

**Impact Resistance:**

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

If using mullions with non-impact resistant windows, then protect the mullied 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 mullied window assemblies will not require protection with an impact protective system.

Refer to the TDI evaluation reports for each of the windows in the mullied assembly to determine the locations where the mullied window assemblies can be used.

**Product Identification:**

A certification program label will be affixed to each individual window of the mullied assembly.

Refer to the TDI evaluation report for each individual window in the mullied assembly for the information specified on the certification program label.

**NOTE:** The certification program label is for the performance characteristics of the individual windows in the mullied assembly and not for the mullied assembly. The design pressure rating for the mullied assembly is as specified in the Limitations Section of this evaluation report.

**Installation:**

**General:** Install the mullied 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 Horizontal Mullions to Vertical Mullions:** Vertical mullions must be secured to horizontal mullions using the angle clip. Anchor as specified on the approved drawings.

**Attachment of Mullion Clips to Wall Framing:** The mullion clips are anchored to the wall framing with fasteners. Anchor the mullion clips to the wall framing as specified on the approved drawings.

**Attachment of Mullion Clips to Mullions:** Anchor the mullion clips to the mullions with fasteners as specified on the approved drawings.

**Attachment of Window Frames to Mullions:** Anchor the window frames to the mullions with fasteners. Refer to Item No. 4 under Anchoring Notes on Sheet 2 of 4 of the approved drawings.

**Attachment of Mullied Assembly to Wall Framing:** The TDI evaluation reports specify the requirements for the wall framing for the individual windows and as specified in the approved drawings. Secure the mullied 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 the mullion location as a point of reference for locating fasteners at window corners.

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