

Product Evaluation

MU28 | 0719

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-28

Effective Date: July 1, 2019

Re-evaluation Date: July 2023

Product Name: Field-Mulled Window Assemblies for PGT Series 5400 and 5500 Impact and Non-Impact Resistant Vinyl Windows using PGT H/V/T/X Aluminum Mullions

Manufacturer: PGT Industries
1070 Technology Drive
North Venice, FL 34275
(941) 486-0100

General Description:

This evaluation report is for mulled windows using extruded aluminum mullions manufactured by PGT Industries.

Mull the windows together using either vertical or horizontal aluminum mullions.

The mulled window assemblies evaluated in this report are for impact resistant and non-impact resistant windows manufactured by PGT Industries and currently listed in TDI product evaluation reports.

Mullion Components:

Mullions: Manufactured from 6005-T5 aluminum. The dimensions are shown on the approved drawings. The mullion assemblies evaluated in this report include the following:

Aluminum H/V/T/X 1.25" X 3.25" X 0.100" Mullion (Applied with Mullion Clips)

This mullion assembly may be utilized with all PGT Series 5400 and 5500 windows.

This mullion assembly may be utilized for single-stacked, single-lined, tee, and cross mullied window configurations as noted in the approved drawings. Refer to Sheet 2 of 9.

Aluminum H/V/T/X 1.25" X 3.25" X 0.100" Mullion (Applied with Mullion End Caps or Additional Anchors)

This mullion assembly may be utilized with all PGT Series 5400 and 5500 windows excluding single-hung and double-hung windows.

This mullion assembly may be utilized for single-stacked and single-lined mullied window configurations. This mullion assembly must not be utilized for Tee, and cross mullied window configurations.

When the mullied windows consist of fin and J-channel frames, mullion end caps must be applied as noted in the approved drawings. Refer to Sheet 1 of 9 and to Sheet 3 of 9 (Figure 4).

When the mullied windows consist of equal leg/box and flange frames, additional anchors must be applied as specified in the approved drawings. Refer to Sheet 1 of 9.

Aluminum H/V/T/X 1.25" X 3.25" X 0.624" Mullion (Applied with Mullion Clips)

This mullion assembly may be utilized with all PGT Series 5400 and 5500 windows.

This mullion assembly may be utilized for single-stacked, single-lined, Tee, and cross mullied window configurations as noted in the approved drawings. Refer to Sheet 2 of 9 and to Sheet 7 of 9.

This mullion assembly must not be utilized without the mullion clips specified in the approved drawings. Refer to Sheet 7 of 9.

Aluminum H/V/T/X 1.25" X 3.94" X 0.624" Mullion (Applied with Mullion Clips)

This mullion assembly may be utilized with all PGT Series 5400 and 5500 windows.

This mullion assembly may be utilized for single-stacked, single-lined, Tee, and cross mullied window configurations as noted in the approved drawings. Refer to Sheet 2 of 9 and to Sheet 8 of 9.

This mullion assembly must not be utilized without the mullion clips specified in the approved drawings. Refer to Sheet 8 of 9.

Anchor Clips: Manufactured from 6063-T6 aluminum. The dimensions are shown in the approved drawings.

Mullion End Caps: Manufactured from rigid PVC. The dimensions are shown in the approved drawings.

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 the following drawing:

Drawing No. TDI-5000MULL.1; sheets 1 through 9 of 9; titled "5400/5500 Series Aluminum Tube Mullions;" dated March 23, 2015; signed and sealed by Anthony Lynn Miller, P.E. on November 6, 2015.

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 mullied 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 mullied assembly must be as specified on the approved drawings.

Design Pressure Rating:

The design pressure rating for the mullied assembly is dependent on the mullion load rating based on the mullion span and the dimensions of the individual windows in the mullied assembly, and the design pressure rating for the individual windows in the mullied 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 procedure outlined in the approved drawings, Sheet 9 of 9, to select a mullion assembly, evaluate the mullion assembly capacity, and determine the required mullion anchors.

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 tables in the approved drawings.

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:

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 (example Inland I zone only or Inland I and Seaward zones).

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 must 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 Instructions:

General: Install the mulled assembly in accordance with the manufacturer's installation instructions, the approved drawings, and this evaluation report.

Preparation of Mullion Clips: The supplied clips do not contain anchor insertion holes. The window installer must drill the insertion holes through the clips in accordance with the approved drawing specifications and details. Refer to Sheets 6-9 of 9.

Attachment of Window Frames to Mullions: Anchor the window frames to the aluminum mullion with fasteners as specified in the approved drawings. The spacing and required penetration into the mullions of the fasteners is as specified in the approved drawings. Refer to Sheet 3 of 9.

Attachment of Mullied 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 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 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 bracket 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 mullion bracket as shown on the approved drawings. Refer to the approved drawings for securing the mullions together.

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

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.