

Product Evaluation

GDR137 | 0420

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: GDR-137

Effective Date: April 1, 2020

Re-evaluation Date: April 2024

Product Name: W350 Model Steel Roll-Up Doors, Non-Impact Resistant

Manufacturer: Mueller, Inc.

1915 Hutchins Ave
Ballinger, TX 76821
(800) 233-8366

General Description:

The Mueller W350 model wind load rated rolling doors are constructed from corrugated, pre-painted galvalume steel interlocking panels. All door assemblies are tested and rated for installation in steel wall framing only. The doors are non-impact resistant. The wall framing must be minimum 14-gauge steel.

The doors consist of a single steel curtain suspended from a drum roller and are equipped with windlocks and with wind bars. The curtain is constructed of corrugated steel panels, which are approximately 20" high and are mechanically interlocked. The panels are 26-gauge, ASTM A 653 Grade 80 structural steel. The steel curtain panels are zinc-aluminum. The steel curtain panels are pre-painted with a full coat of primer and are coated with a baked-on siliconized polyester finish or Galvalume Plus.

The door assembly consists of the following components:

Curtain:

Consists of 26-gauge corrugated steel that is roll-formed from ASTM A 792 Grade 80 pre-painted steel coil. The corrugated sheets are pre-painted Galvalume or Galvalume Plus. The corrugated pans are interlocked mechanically to form the door's curtain.

Guides:

12-gauge galvanized steel roll-formed from ASTM A 653 Grade 55 steel coil. The dimensions of the guides are 2.688" by 3.866".

Wind Bar:

Each guide has a 12-gauge galvanized steel angle bar that is roll-formed from ASTM A 653 Grade 55 steel. The dimensions of the steel angle bar are 1.176" by 1.346" and run the length of the jamb within the guide. This forms the guide assembly.

Bottom Bar Assembly:

One (1) 24-gauge Galvalume steel bottom bar. The bottom bar extends the full length of the curtain. One roll-formed 12-gauge galvanized steel angle bar, 2" by 1.75", full length of the curtain. The steel angle bar attaches to the steel bottom bar with 1/4" diameter bolts with lock nuts. Two (2) bolts are located at either end and two (2) bolts are located in the center. In addition, self-drilling screws are used between the bolts to sandwich a vinyl bottom astragal between the 24-gauge bottom bar and the 12-gauge steel angle bar. The two (2) bolts on either end attach commercial slide bolt locks.

Windlocks:

10-gauge galvanized steel. The dimensions of the windlock are 3" long by 0.84" deep by 1.13" wide. The windlock is attached to the curtain at every other corrugation. Each windlock attaches to the curtain with two (2) 3/16" diameter zinc coated self-piecing rivets.

Product Identification:

The rolling door will have a label affixed to it. The label includes the manufacturer's name (Mueller, Inc.); the name of the product (W350 Roll-Up Door); the drawing number (1.0); the allowable design pressure rating; and the test standards (ASTM E 330-02, ANSI/DASMA 108-2012).

Limitations:

Design Drawing: Install the door in accordance with Mueller, Inc.; drawing No. 1.0; titled "Model W350 Roll-Up Door;" dated November 18, 2019; signed, sealed, and dated November 18, 2019 by Brian D. Campbell. This evaluation report refers to the stated drawings as "approved drawings." The approved drawings must be available at the job site.

Installation Guide:

Install the W350 roll-up door as specified in the "Mueller, Inc. W350 Roll-Up Door Installation Guide." If differences occur between the Installation Guide and the approved drawings, then follow the approved drawings. The Installation Guide must be available at the job site.

Maximum Door Width: 16'-0"

Maximum Door Height: 16'-0"

Glazing: Not permitted

Allowable Design Pressure Rating: +41.8 psf; -41.7 psf. The approved design drawings also specify the allowable design pressure rating.

Impact Resistance: These doors do not satisfy the TDI requirements for windborne debris protection.

Acceptance of Smaller Assemblies: Door assemblies with dimensions equal to or smaller than those specified above are acceptable.

Installation:

Install the door in accordance with the approved drawings and the installation guide. This evaluation report refers to the stated drawings as "approved drawings." The approved drawings must be available at the job site.

Wall framing must be minimum 14-gauge steel. Attach the steel door guides to the minimum 14-gauge steel wall framing with minimum No. 14 x 1-1/4" plated self-drilling screws. Attach the screws to the steel doorjamb through the center of the guide passing through both the 12-gauge steel angle bar and the 14-gauge guide. Locate the screws at 6" on center intervals starting from the floor. Refer to the approved drawings for fastener locations. Inside the guides is a roll-formed windlock angle bar. The guide assembly's design engages the windlocks under wind loading. The windlocks attach to the curtain utilizing self-piercing rivets (2 per windlock) in every other corrugation (alternate corrugations) with the exception of the top two corrugated pans that connect to the drum assembly of the rolling door.

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