TDI | Texas Department of Insurance

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Product Evaluation

GDR144 | 0421

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-144

Effective Date: April 1, 2021
Re-evaluation Date: April 2025

Product Name: CP0001/CP0651 High Performance Insulated Steel Roll-up Doors, Impact Resistant and Non-Impact Resistant

Manufacturer: Cornell Iron Works, Inc.
24 Elmwood Ave
Mountain Top, PA 18707
(800) 233-8366

General Description:

Curtain: The curtain is constructed of interlocking steel slats that consist of two individual slats with either urethane insulation, (CP0001 slat), or mineral wool insulation, (CP0651 slat), to fill the space. Slats are 1" deep and 3" high and fabricated from steel meeting the requirements of ASTM A 653 HSLAS Type A Grade 40 G40, HSLAS Type B Grade 40 G40 or ASTM A653 Structural Steel Grade 40 G40 or Type 201, 304, 316, or 430 stainless steel with a minimum yield strength of 40,000 psi. Steel door are provided with baked on enamel or power coat finish while stainless steel doors are provided with a #4 finish. Steel windlocks are attached to the ends of the slats with 1/4" rivets. Refer to design drawings for details.

Bottom Bar: The bottom bar is constructed of two 2" x 2" full width steel or stainless-steel angles attached to the curtain with 3/8" hex bolts at 18" on center or a full-length aluminum extrusion. Refer to the design drawings for details.

Guides: The guides are constructed of three structural steel angles (two structural steel angles when bolted to an existing steel structure) bolted together to form either a "Z" or "E" shape. When required, a 3/8" x 3/4" steel windlock bar is attached to one angle with 1/4" fillet welds. Refer to the design drawings for details.

Limitations:
Maximum Opening Width: 15'-5" for impact resistant doors; 21'-5" for non-impact resistant doors. Refer to the approved drawings for specific requirements.

Maximum Opening Height: Refer to the approved drawings.

Glazing: Not permitted.

Allowable Design Pressure Rating: Maximum ±50 psf. Refer to the approved drawings for specific design pressure requirements.

Product Identification: The rolling door assemblies have a label that identifies the manufacturer, the model number, the design pressure rating, the test standards, the manufacturer's installation instructions document, ES 10-476, ES 10-478, or ES 10-465, and the drawing number.

Impact Resistance:
- The rolling steel doors installed in accordance with drawing ES-16-101-CIW have been tested for windborne debris resistance. The door assemblies passed the equivalent of Missile Level E as specified in ASTM E 1996-14a.

- The rolling steel doors installed in accordance with drawing ES-16-100-CIW have not been tested for windborne debris resistance.

Acceptance of Smaller Assemblies: Door assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

Installation:
General: Install these doors in accordance with the manufacturer's published installation instructions, ES 10-476, ES 10-478, or ES 10-465, the approved drawings, and this product evaluation report. A copy of the approved drawings and the manufacturer's installation instructions, ES 10-476, ES 10-478, or ES 10-465, must be available at all times at the job site during installation. The information within this evaluation report governs if there are any conflicts between the manufacturer's instructions and this evaluation report.

Design Drawings: The rolling doors must be installed in accordance with one of the following:

- "Wind Load Configuration High Performance Insulated Rolling Steel Door CP0001/CP0651 Slat Non-Impact Rated;" Drawing ES-16-100-CIW, Sheets 1 through 8; issued April 20, 2020; signed and sealed March 18, 2021, by Shawn Patrick Kelley, PE. The stated drawings will be referred to as approved drawings in this report. A copy of the approved drawings must be available at the job site.

- "Wind Load Configuration High Performance Insulated Rolling Steel Door CP0001/CP0651 Slat Impact Rated;" Drawing ES-16-101-CIW; Sheets 1 through 8; issued April 20, 2020; signed and sealed March 18, 2021, by Shawn Patrick Kelley, PE. The stated drawings will be referred to as approved drawings in this report. A copy of the approved drawings must be available at the job site.

Anchorage: The rolling doors must be anchored to the structure in accordance with the approved drawings. Anchorage of the rolling doors to concrete, steel, and grout-filled CMU must follow the mounting details on the approved drawings and the fasteners specified in the mounting details. Minimum edge distances and minimum embedment depths for all fasteners that penetrate into the structure must be as specified on the design drawings and the manufacturer's installation instructions.

Note: Keep the manufacturer's installation instructions, ES 10-476, ES 10-478, or ES 10-465, and the appropriate design drawings on the job site during installation. Use corrosion resistant fasteners as specified in the IRC and IBC.