

## Product Evaluation

GDR133 | 1220

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-133

**Effective Date:** December 1, 2020

**Re-evaluation Date:** December 2024

**Product Name:** StormDefender Non-Insulated Steel Roll-Up Doors, 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. Slats are 1-1/2" deep and 4" 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 a powder coat finish while stainless steel doors are provided with a #4 finish. Integrated notches are located within the bead of the slat to provide curtain retention. Refer to design drawings for details.

**Bottom Bar:** The bottom bar is constructed of a formed profile of similar size and shape as the curtain slats. An additional reinforcement formed "U" shape is inserted into the bottom of the bottom bar for additional strength. Refer to design drawings for details.

**Guides:** There are two types of guide available. A "Z" guide is construction of an outer angle, a bent inner shape, and a wall angle/plate, which are bolted together. The wall angle/plate

combination are welded together in the factory. A "Box" guide is a construction of an outer angle and a tube, which are bolted together. In addition, a "Box" guide may be provided with shims (up to 3/4" total thickness) and/or a pre-manufactured plate/threaded stud assembly. A 1/2" x 1/2" windlock bar is attached to the outer angle with plug welds. Refer to design drawings for details.

**Limitations:**

**Maximum Opening Width:** The maximum opening width is 14'-0". Refer to the approved drawings for specific requirements.

**Maximum Opening Height:** The maximum opening height is 30'-0". Refer to the approved drawings.

**Glazing:** Not permitted.

**Allowable Design Pressure Rating:** Maximum  $\pm 200$  psf. Refer to the approved drawings for specific design pressure requirements.

**Product Identification:** The rolling door assemblies have a label that identifies the manufacturer (Cornell); the design pressure rating (+/-200 psf); the test standards (TAS 201/202/203, Large Missile Impact Rated); the manufacturer's installation instructions document, ES 10-464; and the drawing number.

**Impact Resistance:**

The rolling steel doors installed in accordance with drawing ES-16-81-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.

**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 10-464, the approved drawings, and this product evaluation report. A copy of the approved drawings and the manufacturer's installation instructions, ES 10-464, 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 the following:

"StormDefender Non-Insulated Rolling Steel Door 200 PSF 80 FPS;" Drawing ES-16-81-CIW; Sheets 1 through 7; issued October 02, 2018; Revision B, dated March 9, 2020; signed and sealed October 28, 2020, 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 or steel (minimum A36) 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 10-464, and the approved design drawings available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.