

Product Evaluation

DR1001 | 0523

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: DR-1001

Effective Date: May 1, 2023

Re-evaluation Date: September 2026

Product Name: DL416 Flush Steel Frame Outswing Side Hinged Doors, Impact Resistant

Manufacturer: Republic Doors and Frames
155 Republic Drive
McKenzie, TN 38201
(800) 733-3667

General Description: This evaluation report is for DL416 Flush Steel Frame Outswing Side Hinged Doors. This evaluation report includes the following hinged door assemblies:

- Double Door, Surface Vertical Rod
- Single Door, Surface Vertical Rod
- Double Door, Cylindrical with Deadlock
- Single Door, Cylindrical with Deadbolt
- Double Door, Mortise with Deadlock
- Single Door, Mortise with Deadlock

Product Identification: A Republic Doors and Frames label will be affixed to the door. The label includes the manufacturer's name (Republic Door & Frames); the product name (Commercial Steel Flush Door); the Maximum Nominal Size (Single: 4'0" x 8'0"; Pair: 8'0" x 8'0"); the Design Pressure Rating: +70/-70 psf; the test standards (TAS 201, TAS 202, TAS 203), and the missile level (Large Missile Impact Rated).

Compliance: The products comply with ASTM E 330-14, ASTM E 1886-14a, and ASTM E 1996-14a as referenced in the 2018 IRC and 2018 IBC.

Limitations:

Design Drawings:

Door assemblies must comply with and be installed in accordance with the following drawing:

Drawing No. RDF018; titled "DL416 Flush Steel Door;" Sheets 1 thru 17 of 17; drawing dated 1/26/23; signed and sealed by Hermes F. Norero, P.E on March 6, 2023. The stated drawings will be referred to as the approved drawings in this evaluation report.

Fabrication and Assembly: Republic Doors and Frames door systems are fabricated and assembled in the factory with final assembly at the jobsite.

Design pressure (DP):

The door assemblies have a maximum design pressure rating ± 70 psf. Refer to approved drawings for specific design pressure requirements.

Hardware: Requirements for hardware, including components such as locks, dead bolts, vertical rods, surface bolts, strike plates, and hinges are specified on the approved drawings.

Sill: Requirements for the sill are specified on the approved drawings.

Impact Resistance:

These assemblies have been tested for windborne debris resistance. These assemblies passed the equivalent of Missile Level D specified in ASTM E1996-14a. Install the assembly at any height on the structure that does not exceed the assembly's design pressure rating. For essential facilities, the assembly may not be installed below a height of 30 feet in Wind Zone 3 and may be installed at all heights in Wind Zone 2 as defined in ASTM E 1996-14a.

Installation Instructions:

General: Prepare and install the assembly in accordance with the manufacturers recommended installation instructions. Detailed installation instructions and drawings are available from Republic Doors and Frames.

Installation:

Wall Framing Construction: The door assembly may be anchored to several types of wall framing construction. The types of wall framing construction allowed include:

- concrete (minimum compressive strength: 3,000 psi)
- wood (dimension lumber; minimum Spruce-Pine-Fir)
- masonry (grout-filled, minimum compressive strength: 2,000 psi)

Fastener Requirements:

- Refer to the approved drawings for the anchor layout and notes.
- Refer to the approved drawings for the minimum embedment depths for the fasteners and the minimum edge distances (minimum distance fastener must be from the edge of the substrate material) for the fasteners.

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