

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION DR-412

Effective July 1, 2010

*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 shall be subject to reevaluation May 2013.*

*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.*

**Chem-Pruf Fiberglass Reinforced Polymer Inswing Fire Rated Doors, Impact Resistant,**  
manufactured by

**Chem-Pruf Door Co., Ltd.  
5224 FM 802  
Brownsville, TX 78523  
(800) 444-6924**

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

## PRODUCT DESCRIPTION

Chem-Pruf corrosion resistant fire rated doors are manufactured of fiberglass reinforced polymer (FRP) door faces permanently bonded to a mineral core and to a fire stop material stile and rail system. The fiberglass inswing entry doors evaluated in this report are individual, impact resistant doors. This product evaluation report is for fiberglass inswing fire rated entry doors based on the following tested construction:

### General Description:

System	Description	Design Pressure Rating
1	Fiberglass Inswing Fire Rated Entry Doors; (X)	±40 psf

### Product Dimensions:

System	Overall Size	Door Panel Size
1	52 ¼" x 98 ½"	48" x 96"

### Glazing Description:

System	Glass Construction	Glazing Method
1	N/A	N/A

**Frame Construction:** The door frame is constructed of fiberglass reinforced polymer composite frame and fire stop reinforcement. The frame header and jambs are molded in one continuous piece. The frame corners are miter jointed and mechanically fastened. The threshold is a Chem-Pruf 5" x ½" x 48" fiberglass saddle type.

**Panel Construction:** The door leaf is manufactured of fiberglass reinforced polymer (FRP) door faces permanently bonded to a fire stop stile and rail system. The interior cavity of the door is 1 ½" thick mineral plate core encased by 1 ½" x 1" fire stop rails bonded by a resin.

**Reinforcements:** The door panel is reinforced with a 1 ½" thick mineral plate core encased by 1 ½" x 1" fire stop rails bonded by a resin.

**Hardware:**

- Sargent Series 8200 mortise lock with deadbolt; One (1) required; Secured to the door panel with two (2) No. 12 x 1 ¼" stainless steel screws.
- Sargent Series 8200S Strike plate; One (1) required; Secured to the door frame jamb with two (2) No. 14 x 3 ¾" long stainless steel screws.
- McKinney Series A5133 4 ½" x 4 ½" butt hinges; Four (4) required; Secured to the door panel with three (3) No. 12 x 2" stainless steel screws and one (1) No. 14 x 3 ¾" stainless steel screw. Secured to the door frame side jambs with three (3) No. 12 x 2" stainless steel screws and one (1) No. 14 x 3 ¾" long stainless steel screw.

**Product Identification:** A label will be affixed to the door units. The label shall include the manufacturer's name, the design pressure rating, ASTM E 330, ASTM E 1886, and ASTM E 1996.

**LIMITATIONS**

**Design pressures (DP):**

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	52 ¼	98 ½	± 40

**Impact Resistant:** This door assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris in both the **Inland I zone** and the **Seaward zone**. This door assembly passed Missile Level D specified in ASTM E 1996-02. The door assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.

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

**INSTALLATION INSTRUCTIONS**

**General:** The door assemblies shall be installed according to the manufacturer's installation instructions and this product evaluation.

**Wall Framing:** The wood framing members shall be minimum Spruce-Pine-Fir dimension lumber.

**Installation:**

- Jamb:** No. 14 x  $3\frac{3}{4}$ " long stainless steel sheet metal screws; Located approximately 5 inches from each end and spaced approximately 25 inches on center, alternating on each side of the frame.
- Head:** No. 14 x  $3\frac{3}{4}$ " long stainless steel sheet metal screws; Located approximately 5 inches from each end and spaced approximately 25 inches on center, alternating on each side of the frame.
- Sill:** No. 14 x 2" long stainless steel sheet metal screws; Located approximately 3 inches from each end and spaced approximately 12 inches on center.
- Hinges:** Hinges to door leaf: One (1) No. 14 x  $3\frac{3}{4}$ " long stainless steel sheet metal screw for each hinge and three (3) No. 12 x 2" long stainless steel sheet metal screws for the remaining screws in each hinge.  
Hinges to door frame: one (1) No. 14 x  $3\frac{3}{4}$ " long stainless steel sheet metal screws for each hinge and three (3) No. 12 x 2" long stainless steel sheet metal screws for the remaining screws in each hinge.
- Strike:** Two (2) No. 14 x  $3\frac{3}{4}$ " long stainless steel sheet metal screws.

The fasteners shall be long enough to penetrate a minimum of  $1\frac{1}{2}$  inches into the wood wall framing. For masonry and concrete applications, a  $\frac{1}{4}$ " diameter Crete-Flex SS4 410 stainless steel masonry anchor,  $3\frac{3}{4}$ " long may be substituted for the fasteners specified above. The fasteners shall penetrate a minimum of  $1\frac{1}{4}$  inches into the concrete.

**Note:** The manufacturer's installation instructions shall be available on the job site during installation. Fasteners shall be corrosion resistant as specified in the International Residential Code (IRC); the International Building Code (IBC); and the Texas Revisions.