

Fib-R-Dor Fiberglass Doors ***Durulite CR1400***

Corrosion Resistant Personnel Doors



Fib-R-Dor Fiberglass Doors and...

Every plant in the world fights a daily battle against an age old enemy . . . **Corrosion**



It's everywhere you look. Part of the United States is even referred to as the "Rust Belt". Huge percentages of annual maintenance budgets are being used to scrape, paint and replace assets that have fallen victim to corrosion. These harsh environments are no match against Chase's Fib-R-Dor® fiberglass doors and Durulite® CR1400 rotationally molded, cross-linked polyethylene doors.

Fib-R-Dor and Durulite CR1400 doors are designed for use in extremely corrosive environments, including pharmaceutical manufacturing, food processing, water and wastewater treatment, chemical manufacturing, cleanrooms, oil refineries, theme parks, pulp and paper mills and any other application where doors are subject to severe corrosive conditions. Fib-R-Dor and CR1400 doors can also be used as an alternative to stainless steel and hollow metal doors in schools, institutional and government facilities, saving thousands of dollars in replacement and maintenance costs.

Fib-R-Dor and Durulite CR1400 Advantages:

- **Corrosion resistant** – monolithic panel design and corrosion resistant materials ensure long panel life in harsh environmental conditions.
- **Cleanable finish** – smooth finish is designed for installation in areas with stringent requirements or frequent washdown.
- **Sanitary, seamless construction** – no glue, seams or gaps that can harbor bacteria or cause premature panel failure.
- **Pre-finished panels** – doors ship finished from the factory and do not require painting. Panel color is throughout the surface of the door.
- **Durable, long lasting construction** – reduces life-cycle cost of the product and eliminates waste that normally goes into a landfill from premature product failure.
- **Custom manufactured to your exact specifications** – your choice of color, options and sizes.
- **Manufactured to meet USDA and FDA requirements.**
- **The best customer service in the industry** – whether the project is large or small, we are with you every step of the way and are not satisfied until you are.
- **Superior warranty** – Chase has been manufacturing doors since 1932; we stand behind our products before and after they are sold.



Durulite CR1400 Corrosion Resistant Doors

Stop Corrosion with Fib-R-Dor and Durulite CR1400 Doors

Our customers demand durability, performance and ease of maintenance. Fib-R-Dor and Durulite CR1400 door systems utilize premium materials, hardware and accessories, ensuring an attractive, dependable door that will stand up in the worst atmospheric conditions. Neither Fib-R-Dor nor Durulite CR1400 doors will ever need to be painted as the color is molded into the door and both can be cleaned easily with soap and water or washed down with stringent cleaners.

Every Fib-R-Dor and Durulite CR1400 door system is custom manufactured to meet your precise specifications. Our in-house engineering team and customer service department check every order before sending it to production, making sure the specifications exactly meet the application requirements. Our experienced production team includes crafts people that are cross trained to perform a variety of duties, ensuring that the door systems meet customer demand with minimal interruption.

Fib-R-Dor Fiberglass Door Systems

Fib-R-Dor utilizes a combination of unique manufacturing techniques and fiberglass technology to create a panel that is beautiful, cleanable and durable. Fib-R-Dor products are FDA and cGMP compliant, and are designed for use in facilities that require regular cleaning with harsh chemicals. Fib-R-Dor door systems are designed for use on interior and exterior applications, and can be equipped with virtually any hardware configuration required. Fib-R-Dor door systems are available with up to 90 minute fire labels, are certified to meet the Florida Building Code Standards, and have far surpassed the ANSI One Million Cycle Test.

Durulite CR1400 Corrosion Resistant Door Systems

In high abuse interior applications, consider the Durulite CR1400 corrosion resistant door system. The CR1400 is impervious to acids, petroleum products, animal fats and cleaning solvents, and will take a punch like no other door system. The door panel is constructed using rotational molding technology, creating a one-piece outer skin of high density, cross-linked polyethylene. The interior core is ultra-high density urethane foam. This combination results in a panel that will absorb impact and perform well in the most difficult conditions.



Fib-R-Dor's Unique Manufacturing Process



Fib-R-Dor utilizes a unique "outside-in" manufacturing process, creating a highly durable panel with no seams, gaps or potential failure points. Designed for use in facilities that require regular cleaning with harsh chemicals, the seamless construction eliminates particulate "catch" points that make traditional doors difficult to sanitize. The entire exterior of the door panel is molded fiberglass with a permanent bond to the core material, ensuring a beautiful, durable, low maintenance door that will last an extremely long time. Fib-R-Dor fiberglass door color is a molded gel coat finish, so it will never corrode, need to be painted or discolor like steel and aluminum doors.

The Door Edge Advantage

The unique panel manufacturing technique is one of the key differences offered by Fib-R-Dor when it comes to panel durability. All Fib-R-Dor panels have a molded fiberglass edge that is chemically welded to the door skins, making it up to 3 times stronger than tubular or channel door designs. Competitors use glue to attach the face sheets to tubes or channels, resulting in a potential separation point over time. The Fib-R-Dor method of permanently welding the edge of the door to the skins creates a one-piece exterior shell that will not peel, separate or delaminate.

The Door Frame Advantage

By design, the Fib-R-Dor pultruded frame system conforms to industry standards in shape and installation methods. The durable, corrosion resistant frame is constructed with FRP pultruded material in performance with Steel Door Institute standards. The corners are mitered with no exposed fasteners for a clean finish. Additional reinforcement can be added if required by the application or to accommodate specialty hardware. A variety of configurations and mounting options are also available, allowing Fib-R-Dor products to be installed on concrete, brick, block, foam panel, drywall and tilt-up wall systems.



Installation is Fast and Easy

All Fib-R-Dor panels are CNC machined to fit perfectly in their matching frames. Fib-R-Dor panels are made to Steel Door Institute dimensions and standards, making installation of Fib-R-Dor door systems fast and easy. As a door system that battles rust, corrosion, fire and hurricanes, Fib-R-Dor is an extremely valuable component in a wide range of markets and applications!



Beauty Meets Durability

Designed for quality and dependability, every Fib-R-Dor door system is custom manufactured to the exact specifications of each job. Fib-R-Dor door systems can be ordered with windows, passage/locksets, door closers, panic devices, push/pull handles, kick plates, louvers, flush bolts, astragals, bottom sweeps and weather-stripping. Even special colors and textures can be produced.



Fib-R-Dor Features:

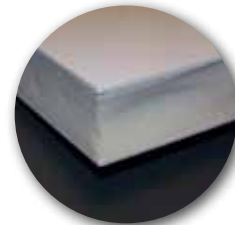
- **Door Surface** – Requires no painting or finishing, the mirror-smooth gel coated fiberglass panels are constructed with impact resistant, premium grade resins. The resin is reinforced with hand-laid glass fibers that are integrally molded creating a corrosion resistant, one-piece seamless exterior surface. The gel coat finish is so beautiful that no one would ever know the punishment it can withstand from harsh corrosive elements such as chemicals, cleaning agents, repeated washdowns, saltwater and even severe weather. Standard colors are white, gray, brown and tan in a high gloss or pebble finish. Optional colors are also available, please contact factory.
- **Door Core** – Fib-R-Dor is available with a variety of cores including polypropylene honeycomb, end grain balsa, urethane foam and gypsum for fire rated doors. (See images below)
- **Door Edge** – Multiple layers of pigmented resin are chemically welded to the face sheets, creating a monolithic one-piece exterior. Standard nominal thickness is 3/8". This design combined with steel reinforcement plates buried beneath the fiberglass at hinge locations easily supports the weight of the door. Door edges are CNC machined for an accurate fit and smoothness.
- **Hinges** – Full mortise stainless steel hinges are standard. Continuous hinges, hospital hinges and other specialty hinges are available.
- **Frame** – A variety of frame options including pultruded fiberglass and stainless steel are available. Fib-R-Dor offers several common fiberglass frames for installation on most wall conditions including insulated panel walls. In addition, stainless steel frames can be manufactured to your specific jamb requirements.



Polypropylene Honeycomb is lightweight and extremely durable, and is commonly used as a core for doors installed in pharmaceutical applications.



End Grain Balsa provides superior strength, and is recognized as one of the most versatile core materials for sandwich construction. This closed cell material is non-absorptive, and extremely strong with an 11 lb. density rating. Balsa is also an environmentally friendly, ecological resource core material.



Urethane Foam has excellent insulating qualities, plus it is known for sound control, low permeability and helps to prevent mold and mildew growth.

Fire Rated Doors



When fire rated doors and frames are required, Fib-R-Dor has the solution. Fib-R-Dor fire rated door systems meet and exceed both neutral and positive pressure fire rated labels. Available with 20, 30, 45, 60 and 90 minute labels.



Neutral Pressure Fire Doors

Fib-R-Dor corrosion resistant door systems are available with 20, 30, 45, 60 and 90 minute labels and meet the Underwriters Laboratories, Inc. "Standard for Fire Tests of Door Assemblies, UL 10B" and UL 305 Standard for Safety "Panic Hardware".

When doors are tested under the neutral pressure testing method, the test chamber is vented so the neutral plane is above the door. This scenario does not allow pressure to build-up in the room, so air actually enters the room around the door edges, reducing the chance of flames igniting the outside door and surface.

Positive Pressure Fire Doors

Fib-R-Dor corrosion resistant door systems are also available with 20, 30, 45, 60 and 90 minute labels by Warnock-Hersey with UBC 7-2-1997 and UL 10c NFPA 252 for positive pressure fire rated doors.

Under positive pressure, the test is performed with the neutral plane 40" above the floor. This method causes hot gases to be forced out around the edge of the door, making it easier for flames to transfer to the outer door and surface. To prevent flames from transferring, Fib-R-Dor fire door utilizes intumescent seals. Intumescent seals expand under heat, filling the gap between the door and frame. The intumescent seals can be molded in during the manufacturing process or applied on the surface of the door.



Storm Rated Doors and Certifications

Fib-R-Dor fiberglass door systems meet Florida building code approval, ASTM standard for Airblast Loading and GSA test for Dynamic Overpressure Loadings. Plus at 2 million and counting, Fib-R-Dor has far surpassed the ANSI One Million Cycle Test!



Fib-R-Dor door systems meet and exceed the stringent requirements of the Florida Building Code (FBC), International Residential Code (IRC), and the Texas Department of Insurance for hurricane rated openings. The International Building Code (IBC) and International Residential Code (IRC) are the model codes for the 2007 Florida Building Code and the soon to be adopted 2010 Florida Building Code. Contained within the building code are specific sections relating to design pressure calculation, testing and evaluation of products to be used in hurricane prone regions.

Chapter 16 of the Florida Building Code stipulates that the wind loads on every building be determined in accordance with ASCE 7. ASCE 7 determines design pressures for components and cladding used on building envelopes based on parameters such as geographic location, wind speed, importance of the building use and location of the opening on the building and size of the opening.

ASTM E1886/1996 is a standard that was created to ensure that products installed in coastal regions will provide adequate protection against the extreme weather conditions that are common with a hurricane. To meet the ASTM E1886/1996 standard, the door system must act as a barrier to water, maintain structural integrity under high wind conditions, including cycling from extreme positive to extreme negative pressures, and pass a "missile test" where a projectile is fired at the door panel at a high rate of speed.

Fib-R-Dor "FBC Series" is approved for use in the State of Florida under Florida Product Approval # FL14551 and meets the following codes:

ASTM Test

ASTM E1886 - Impact testing by missile and cyclic pressure differential test

ASTM E1996 - Large missile impact testing

ASTM E330 - Wind load testing of windows and doors by static air pressure difference

ASTM E331 - Water penetration testing

ASTM E283 - Air leakage testing by air pressure differences

ASTM D635-03 - Rate and extent of burning test

ASTM D1929-96 - Ignition temperature test

ASTM D2843-99 - Smoke density from burning test

Cycle Test

ANSI A250.4-2001 - Acceptance criteria for physical endurance for steel doors, frames, frame anchors and hardware reinforcement

Airblast Loading

ASTM F 1642-04 - Standard test method for Airblast Loading

GSA-TS01-2003 - US General Service Administration standard test method for Dynamic Overpressure Loadings

Durulite CR1400 Utilizes Rotational Molding Technology

Chase Doors invented the roto-molded door in 1976. Since that time, we have sold over a half million rotationally molded doors and our manufacturing process is second to none. The Durulite CR1400 utilizes the rotationally molded manufacturing process and is extremely durable.

The process starts by placing a specific amount of colored plastic resin into an aluminum mold. The mold is then closed and attached to a long arm on an automated molding machine. The mold first moves into an oven chamber and then slowly spins on two axis, causing resin to melt and adhere to the inside of the hot mold. After the proper amount of "cooking time," the mold swings to the next station where air is used to cool down the mold, allowing the material to set as it continues to spin—assuring an even wall thickness. When it is completely cooled, it swings to the original station where the mold is opened and a hollow door shell is removed. The rotational speed, heating and cooling times are all controlled throughout the process. The end result is a seamless, one piece high density cross-linked polyethylene door shell that is naturally resilient and is impervious to acids, petroleum products, animal fats and cleaning solvents.



After cooling is complete, the hollow panel is put into a hydraulic press where it is injected with NON-CFC urethane foam, which completely fills the cavity inside the hollow door shell. The foam provides a variety of benefits, including thermal insulating characteristics and increased shock absorbency. The Durulite CR1400 will retain an attractive appearance in the most difficult conditions.



Attractive, Durable and Maintenance Free



The Durulite CR1400 door is designed for use in heavy duty interior applications that require durability, corrosion resistance and ease of maintenance in a door system. Every Durulite CR1400 is custom manufactured to the exact specifications of each opening. Durulite CR1400 doors can be ordered with windows, passage/locksets, door closers, panic devices, push/pull handles, kick plates, louvers, astragals, flush bolts, bottom sweeps and weather-stripping.

CR1400 Features:

- **Door Surface** – Seamless panel construction makes this door ideal for washdown applications. The sanitary surface never needs painting and cleans easily with soap and water. Available in 14 standard colors.
- **Door Panel** – Constructed with a 1/8" thick outer skin of cross-linked polyethylene with an ultra high density, NON-CFC urethane foamed-in-place core. The panel can retain its properties from -40°F to 150°F continuous service and 170°F intermittent service with temperature differences of up to 40°F. The overall thickness of the panel is 1-3/4", yet weighs only 3.66 pounds per square foot, making it lightweight and easy to open.
- **Gasketing** – All doors come standard with a replaceable bottom sweep, and are available with a drop down seal. Full perimeter gasketing is also available.
- **Hinges** – Optional high quality stainless steel hinges mount the CR1400 securely to the frame and provides years of service.
- **Window** – CR1400 door systems can be equipped with a variety of window configurations, including single and double pane units. Various glazing types and frame materials are available.
- **Insulation** – The CR1400 has excellent insulation qualities with an EcoMate foamed-in-place NON-CFC urethane core. Ecomate insulation is designed to be environmentally friendly; it was awarded VOC (Volatile Organic Compound or SMOG) Exempt Status by the EPA.

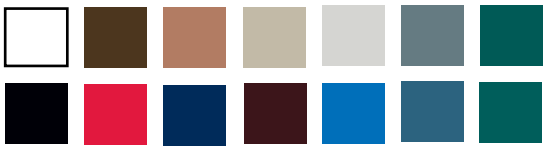


Fib-R-Dor & CR1400 Door Options



Hinges

We offer heavy duty 4-1/2" x 4-1/2" full mortise stainless steel ball bearing hinges with non removable pins. Continuous hinges, hospital hinges and other specialty hinge systems are available. Fib-R-Dor and CR1400 doors will accept virtually any hollow metal type door hinging system. Hinge locations can be set to custom locations or to match any manufacturer's locations.



*Durulite CR1400 Standard Colors

(From left to right) White, Choc. Brown, Med. Brown, Beige, Cloud Gray, Metallic Gray, Forest Green, (Second row) Black, Red, Navy, Burgundy, Royal Blue, Cadet Blue, Jade



*Fib-R-Dor Standard Colors

White, Gray, Brown and Tan

*Contact factory for additional colors and exact color match.



Hardware Options

The Fib-R-Dor and CR1400 doors can be equipped with virtually any hardware that is available on a standard hollow metal door:

- Chrome and stainless finish passage and locksets
- Stainless steel push/pull handles, dead bolts
- Surface or flush bolts
- Panic device – either a rim, mortise or surface mounted vertical rod device
- Protective edge caps and stainless impact plates are available.



Lite Kits

Optional windows are clear, polycarbonate or a variety of glass products including laminated, tempered or wire reinforced. Windows are available in an array of sizes. On the CR1400 doors, the glazing is set in your choice of stainless steel or two-piece injection molded, low profile PVC frames. The stainless steel frames can either be surface mounted or flush mounted for pharmaceutical applications. Fib-R-Dor has three standard kits with no miters or fasteners on one side, which creates a seamless frame that is easy to clean and used for security features. Optional stainless steel lite kits are also available.

Adjustable Door Closers

Adjustable closers with corrosion resistant finishes are available for use with Fib-R-Dor and CR1400 doors and can be mounted on the push or pull side of the door. Closers can be equipped with time delay or hold open option.



Fib-R-Dor & CR1400 Door Frame Options

Chase offers both pultruded fiberglass frames and stainless steel frames. Either frame can be butt mounted or wrapped for most wall conditions, including insulated panel walls. The frames are available with a variety of mounting systems. Fib-R-Dor products can be installed on any type of wall construction, including concrete, brick, block, foam panel, drywall and tilt-up wall systems. Stainless steel frames can be manufactured to your specific jamb requirements.



Fiberglass Frames

Fiberglass frames are constructed of 1/4" thick, fiberglass material with reinforced, mitered corners. Fiberglass frames are available in 4" wide (single rabbet) or 5-3/4" wide (double rabbet) profiles. Reinforcements are placed inside the frame for installation of the door hardware.

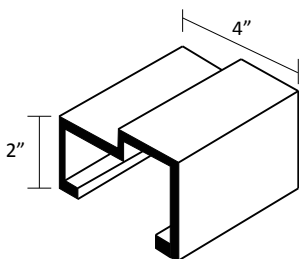


Stainless Frames

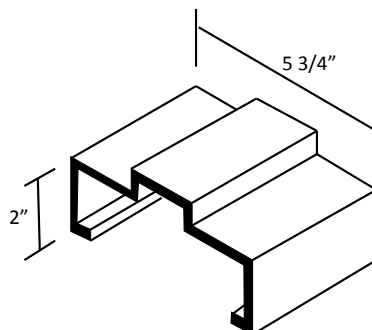
Manufactured for any wall thickness, stainless frames can ship K.D. (knock down), face welded or fully welded. Standard type 304 stainless and optional type 316 material is available. Single or double rabbet frames can be manufactured for walls as narrow as 3" or as wide as 12".

Fib-R-Dor and CR1400 frames are available in a variety of styles and profiles and adapts to all types of wall constructions, including steel, wood and CMU. Whether you require a fire rated frame, storm rated frame, variable frame or standard frame, we can provide a frame for your specific application. Additional frames available, please contact factory.

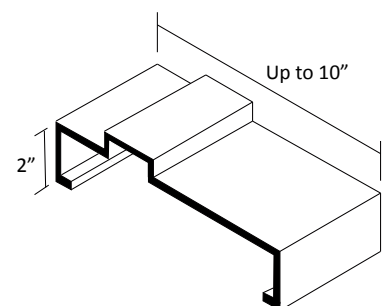
4" Single Rabbet



5 3/4"



Variable Frame



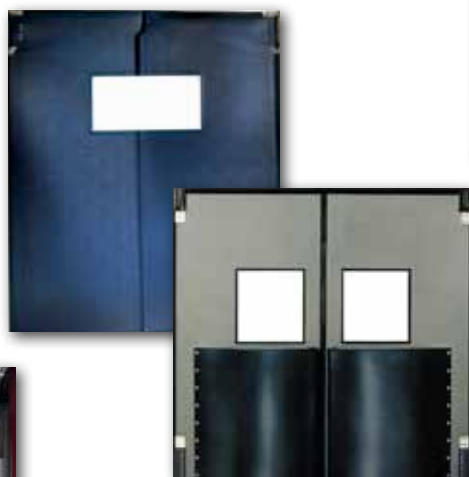
Other Specialty Door Products from Chase Doors



Sliding Fire Doors and Pharmaceutical Doors



Cold Storage Doors



Flexible and Impact Traffic Doors



Strip Doors and PVC Roll Goods



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For Fib-R-Dor Fiberglass Doors, please call 800.342.7367 / 501.758.9494 Fax: 501.758.9496

For Durulite CR 1400 and all other door products, please call 800.543.4455 / 513.860.5565 Fax: 800.245.7045

In our continuing effort to improve our products, some specifications or descriptions may change. We reserve the right to make such changes without notice or recourse.

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