



# A complete corrosion-resistant door system that's easy to install. H Ň RE TT

TOUGH LIGHTWEIGHT FIBERGLASS REINFORCED DOOR AND FRAME SYSTEMS

One-piece color pig- mented FRP pultrud- ed frame and long- lasting threshold.
2 Door edges fully machined for accurate fit and smoothness.
3 Lightweight resin impregnated balsa core provides out- standing rigidity and strength.
Mirror-smooth gel- coated FRP panels made with impact resistant premium- grade isopolyester- resin.
5 Extra molded in reinforcement on hinged side of door.
6 Complete with stain- less steel fasteners and anchors.
EXISTING MASONRY OPENING ANCHOR (EMOA) 4* X <sup>1</sup> / <sub>4</sub> * S.S. EXPANSION ANCHOR S.S. PLATE REINFORCEMENT
NEW MASONRY OPENING TEE ANCHOR (MTA) MASONRY TEE STRAP ANCHOR
6" FOAM WALL WOOD BUCK ANCHOR (WDS) 4" S.S. WOOD SCREW S.S. PLATE REINFORCEMENT
DRYWALL STUD ANCHOR (DSA) 4" S.S. WOOD SCREW 11/2" SQUARE TUBE REINFORCEMENT

# SPECIFICATIONS FOR FIB-R-DOR DOOR AND FRAME SYSTEMS

## **NOTE: SPECIFICATIONS AVAILABLE ON DISK, WEBSITE OR PRINTED COPY UPON REQUEST.**

#### FIBERGLASS REINFORCED DOOR AND DOOR FRAME SYSTEMS

This section is based on fiberglass reinforced plastic doors and fiberglass door frames for corrosive environments produced by:

FIB-R-DOR Division of Advance Fiberglass, Inc. P.O. Box 13268 • Maumelle AR 72113 Telephone 1-800-342-7367 • FAX 501-758-9496 FIB-R-DOR custom fabricates doors for each project. FIB-R-DOR is USDA accepted.

FIB-R-DOR produces both non-rated and labeled fire-rated fiberglass doors.

#### PART 1 GENERAL **1.1 SECTION INCLUDES**

- A. Fiberglass Reinforced Plastic (FRP) Doors.
- B. Fiberglass Door Frames.
- C. Fiberglass Louvers.
- D. Fiberglass Reinforced Plastic (FRP) Transoms.

## **1.2 RELATED SECTIONS**

A. Section 08710 - Door Hardware. B. Section 08800 - Glazing.

#### **1.3 REFERENCES**

A. ASTM D 523 - Standard Test Method for Specular Gloss.

- B. ASTM D 635 Standard Test Method for Rate of Burning and/or Extent and Time of Burning of
- Self-Supporting Plastics in a Horizontal Position. C. ASTM E 84 - Standard Test Method for Surface
- Burning Characteristics of Building Materials. D. ASTM E 152 - Standard Methods of Fire Tests
- of Door Assemblies.
- E. NFPA 252 Standard Methods of Fire Tests of Door Assemblies.
- F. SDI-100 Recommended Specifications for Steel Doors and Frames.
- G. UL 10B Standard for Fire Tests of Door Assemblies.

H. UL 305 - Standard for Panic Hardware.

## **1.4 SYSTEM DESCRIPTION**

A. Performance Requirements:

1. Door opening assemblies:

The following two sub-paragraphs are options; delete if not applicable to the project.

a. Maximum flame spread 25 in accordance with ASTM E 84, self-extinguishing in accordance with ASTM D 635. b. USDA accepted.

2. Fire rated assemblies: Comply with requirements of UL10B, NFPA 252, and ASTM E 152; UL ratings indicated on drawings, with doors and frames bearing rating labels.

#### **1.5 SUBMITTALS**

A. Submit under provisions of Section 01300. B. Product Data: Manufacturer's printed product data indicating characteristics of products specified in this Section.

C. Shop Drawings:

1. Plans: Indicate location of each door opening assembly in project.

2. Elevations: Dimensioned elevation of each type door opening assembly in project; indicate sizes and locations of door hardware, and lites and louvers, if specified.

3. Details: Installation details of each type installation condition in project; indicate installation

details of glazing, if specified. 4. Schedule: Indicate each door opening assem-

bly in project; cross-reference to plans, elevations, and details.

D. Selection Samples: Manufacturer's standard color chips

E. Verification Samples: Two (2) samples to verify color match.

F. Manufacturer's Instructions: Printed installation instructions for door opening assemblies.

G. Warranty Documents: Manufacturer's standard warranty documents, executed by manufacturer's rep-

# resentative, countersigned by Contractor.

## 1.6 DELIVERY, STORAGE, AND HANDLING

A. Packing, Shipping, Handling and Unloading: Package door opening assemblies in manufacturer's standard containers.

B. Store door assemblies in manufacturer's standard containers, on end, to prevent damage to face corners and edges.

## **1.7 WARRANTY**

A. Manufacturer's Warranty: Manufacturer's 15year warranty against failure due to corrosion from specified environment.

#### **PART 2 PRODUCTS 2.1 MANUFACTURERS**

A. Acceptable Manufacturers:

FIB-R-DOR Division of Advance Fiberglass, Inc.; P.O. Box 13268, Maumelle AR 72113;

Telephone 1-800-342-7367, FAX 501-758-9496

Delete one of the two paragraphs below; coordinate with Division 01 requirements.

- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.
- C. Substitutions: Not permitted.

D. Manufacturer must have been in business of manufacturing FRP doors and frames for minimum of 10 years.

## **2.2 MATERIALS**

- A. Fiberglass Mat: Minimum 1.5 ounces per square foot
- B. Resins: Manufacturer's formulation for fabricating units to meet specified requirements.
- C. Anchors: Manufacturer's standard stainless steel expansion anchors for existing openings, and stainless steel masonry tee anchors for new construction
- D. Fasteners: Stainless steel.

E. Glazing: Type specified in Section 08800; factory installed.

# **2.3 MANUFACTURED UNITS**

A. Non-rated Fiberglass Reinforced Plastic (FRP) Doors:

- 1. Thickness: 1-3/4 inches.
- Thermal Insulating Value: 'R' factor 11. 2
- 3. Construction:
- a. Core: End-grain balsa wood, resin-impregnated.
- b. Door Plates: Molded in one continuous piece, resin reinforced with hand-laid glass fiber mat,

nominal 1/8 inch thick, minimum 15 mil gel-coated surface.

c. Door Edges: Minimum three (3) layers resin-reinforced glass fiber mat, nominal 3/8 inch thick, machine tooled.

4. Sizes: Indicated on drawings.

5. Finish: Smooth gloss surface, minimum value 88 in accordance with ASTM D 523.

- 6. Color:
- B. Fire-rated Fiberglass Reinforced Plastic (FRP) Doors:
  - 1. Thickness: 1-3/4 inches.
  - 2. Thermal Insulating Value: 'R' factor 11.
  - 3. Construction:
  - a. Core: Fire-resistant mineral core.

b. Door Plates: Molded in one continuous piece, resin reinforced with hand-laid glass fiber mat, nominal 1/8 inch thick, minimum 25 mil gel-coated surface.

c. Door Edges: Minimum three (3) layers resin-reinforced glass fiber mat, nominal 1/4 inch thick, machine tooled.

4. Sizes: Indicated on drawings.

5. Finish: Smooth gloss surface, minimum value 88 in accordance with ASTM D 523. Consult manufacturer's color chart for available col-

## 6. Color:

ors.

C. Non-rated Fiberglass Frames:

1. Construction: One-piece pultruded fiberglass reinforced plastic, minimum 1/4 inch wall thickness, jamb-to-head joints reinforced with FRP clips and stainless steel fasteners; conforming to SDI requirements for performance equivalent to 16 gage steel frames

2. Frame profile: 5-3/4 inches deep, 2 inches wide face; double rabbeted with 5/8 inch high stop.

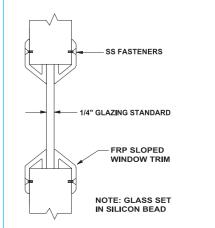
3. Sizes: Indicated on drawings.

4. Finish: Satin finish, with true and consistent color throughout frame thickness.

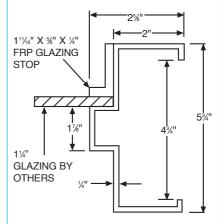
Selections below represent manufacturer's standard available colors with CO-X Finish.

- 5. Color: White pigmented.
- 6. Color: Gray pigmented.
- 7. Color: Tan pigmented.
- 8. Color: Dark Brown.

#### STANDARD DOOR GLAZING DETAIL

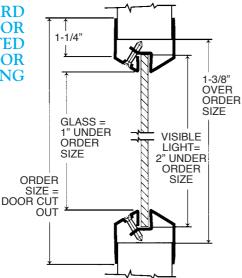






# SPECIFICATIONS FOR FIB-R-DOR DOOR AND FRAME SYSTEMS

**STANDARD FIB-R-DOR** FIRE RATED DOOR **GLAZING** 



Standard frames are available with a custom colored finish

7. Color to match:

D. Fire-rated Frames: UL approved, and as follows: Select frame construction type in one of the three following paragraphs.

1. Construction: Type 304 stainless steel.

2. Construction: Cold-rolled steel, primer finish. 3. Sizes: For door sizes and frame profiles indicated

on drawings. E. Frame Anchors: Types recommended by manufac-

turer for project conditions.

F. Louvers in Non-rated Doors: 1. Construction: Molded solid vanes; pultruded

fiberglass reinforced plastic construction.

- 2. Sizes: Indicated on drawings. 3. Finish: Satin finish, with true and consistent
- color throughout frame thickness.

Selections below represent manufacturer's standard available colors.

4. Color: White pigmented.

5. Color: Gray pigmented.

6. Color: Tan pigmented.

G. Louvers in Fire-rated Doors: UL approved for indicated fire resistance rating.

H. Lites in Non-rated Doors:

- 1. Stops: Pultruded fiberglass reinforced plastic construction
  - 2. Glazing: Specified in Section 08800.

3. Sizes: Indicated on drawings.

4. Fasteners: Stainless steel screws.

I. Lites in Fire-rated Doors: UL approved, and as follows:

Select stop type in one of the three following paragraphs.

1. Frames: Type 304 stainless steel.

2. Frames: Cold-rolled steel, gray primer finish.

3. Frames: Cold-rolled steel, bronze baked enamel finish

4. Glazing: Specified in Section 08800.

5. Sizes: Indicated on drawings.

6. Fasteners: Stainless steel screws

J. Fiberglass Reinforced Plastic (FRP) Transoms:

Match adjacent door construction and color.

Retain one of the following two paragraphs; if specifying door hardware supplied by door manufacturer, edit second paragraph for project conditions.

K. Door Hardware: Specified Section 08710.

- L. Door Hardware: Supplied by door manufacturer, UL-listed for fire-rated openings, and as follows:
- 1. Hinges: Location and quantity indicated on approved shop drawings, and as follows:

a. Type: Full-mortise, ball-bearing stainless steel

butts, 4-1/2 inches by 4-1/2 inches template; stainless steel fasteners

b. Acceptable product: Fib-R-Dor BB51

Select closer required in one of the following three paragraphs.

2. Closers

- a. Type: Standard service.
- b. Acceptable product: CR900P.
- 3. Closers:
- a. Type: Severe service.
- b. Acceptable product: LCN 4041-EDA-SRI-ALXTB

4. Closers:

- a. Type: Stainless steel arms.

b. Acceptable product: Norton 1601SS. 5. Kick Plates: 18 gage stainless steel, with

beveled edges and brushed finish; stainless steel fasteners

Select lockset and latchset grade requirement in one of the following two paragraphs; Grade 2 is standard service, Grade 1 is severe service.

6. Locksets and Latchsets: Ball knob, exposed surfaces of stainless steel, Grade 2.

7. Locksets and Latchsets: Ball knob, exposed sures of stainless steel, Grade 1.

8. Push/Pulls: Stainless steel, with beveled edges and brushed finish, size 3-1/2 inches by 15 inches;

stainless steel fasteners. 9. Exit Devices:

a. Type: Conforming to UL 305; equipped with pull handle and thumb latch.

b. Acceptable product: RIM 19-R Series.

#### 2.4 FABRICATION

A. Fiberglass Reinforced Plastic (FRP) Doors: 1. Minimum glass fiber to resin ratio: 30 percent. 2. Mortise for lockset, and recess for strike plate in

- lock stile
- 3. Embed steel reinforcement for hinges in fiberglass matrix; provide for hinge leaf recesses in hinge
- stile
  - B. Fiberglass Frames
- 1. Mortise for lock strike, and recess for strike plate in lock jamb.

2. Reinforce for hinges and other indicated hardware.

#### PART 3 EXECUTION **3.1 EXAMINATION**

A. Verification of Conditions:

1. Openings are correctly prepared to receive doors and frames.

2. Openings are correct size and depth in accordance with shop drawings.

# SINGLE DOOR LABEL REQUIREMENTS

- Door panels not to exceed 4'0" x 8'0".
- Doors must have a U.L. rated latch, i.e. lock set or passage set with 1/2" throw minimum or fire exit hardware.
- Doors must have a U.L. rated closer.
- Lites must be mounted in U.L. rated metallic frames. .
- Maximum rating of 90 minutes.

# DOUBLE DOOR LABEL REQUIREMENTS

- Door panels not to exceed 8'0" x 8'0".
- Doors must have a U.L. rated latch, i.e. lock set or passage set with 3/4" throw minimum, active leaf or fire exit hardware.
- Doors have flush bolts or surface bolts.
- Doors available with or without astragal. •
- Lites must be mounted in U.L. rated metallic frames.
- Maximum rating of 60 minutes.

B. Installer's Examination:

1. Have installer examine conditions under which construction activities of this section are to be performed and submit written report if conditions are unacceptable.

2. Transmit two copies of installer's report to Architect within 24 hours of receipt.

3. Beginning construction activities of this section before unacceptable conditions have been corrected is prohibited.

4. Beginning construction activities of this section indicates installer's acceptance of conditions.

C. Verify that glazing has been factory-installed.

### **3.2 INSTALLATION**

A. Install door opening assemblies in accordance with shop drawings, SDI-100, and manufacturer's printed installation instructions, using installation methods and materials specified in installation instructions

B. Installation of door hardware is specified in Section 08710.

C. Install door hardware in accordance with manufacturer's printed instructions, using through-bolts to secure surface applied hardware.

D. Site Tolerances: Maintain plumb and level tolerances specified in manufacturer's printed installation instructions.

er's maintenance instructions to swing open and shut

without binding, and to remain in place at any angle without being moved by gravitational influence.

B. Adjust door hardware to operate correctly in

accordance with hardware manufacturer's maintenance

A. Clean surfaces of door opening assemblies and

sight-exposed door hardware in accordance with manu-

A. Protect door opening assemblies and door hard-

ware from damage by subsequent construction activities

**3.5 PROTECTION OF INSTALLED** 

#### 3.3 ADJUSTING A. Adjust doors in accordance with door manufactur-

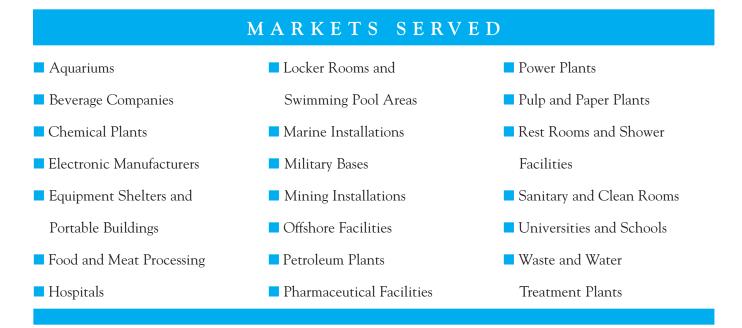
instructions

**3.4 CLEANING** 

PRODUCTS

until final inspection.

facturer's maintenance instructions.



# **STANDARD FIB-R-DOR**

It's easy to see why our tough, lightweight fiberglass reinforced plastic door and frame systems are preferred over metal doors where corrosive or humid conditions exist. They last longer, are easy to install, and the colors are molded in and therefore require no painting or maintenance. These and other benefits provide reliability and long term savings, a reason for Fib-R-Dor's success!

Industries such as food processing, water/waste management, pulp and paper and pharmaceutical are well aware of Fib-R-Dor's cost savings and have taken advantage of our unique construction and outstanding aesthetics. Space age technology combines mirror smooth fiberglass panels with an endgrain balsa core that forms an extremely strong, lightweight, one-piece rigid door.

Every Fib-R-Dor door system is custom manufactured to the exact specifications of each job. Fib-R-Dor systems can be ordered with or without windows, louvers, kickplates, panic devices, etc. In fact, we can build a door and frame system in just about any size, color and hardware configuration needed.

- Sanitary, seamless construction
- 15 year guarantee against corrosion
- USDA and FDA accepted
- Made in USA

# FIRE RATED FIB-R-DOR

When fire rated doors are called for, Fib-R-Dor has the answer with Fib-R-Fire-Dor. Underwriters Laboratories approved 20/30/45/60/90 minute fire rated door systems are now available from Fib-R-Dor in a wide variety of sizes, color and hardware choices. Still offering guaranteed corrosion resistance, every fire rated door shipped meets U.L.'s strict "Standard for Fire Tests of Door Assemblies, U.L. 10B", and U.L. 305 Standard For Safety "Panic Hardware"!

Just like our standard Fib-R-Dor system, Fib-R-Fire-Dor panels are carefully machined to fit perfectly in their matching frames. Moreover, panels and frames are made to SDI (Steel Door Institute) dimensions making installation of Fib-R-Dor door systems fast and easy and requiring no special tools or training. A door system that battles rust, corrosion and fire makes Fib-R-Fire-Dor an extremely valuable component in a wide range of markets and applications.



- Molded in color- no painting necessary
- Longer life- no replacement costs
- Rust proof- no maintenance costs
- Wide choice of colors

