PART 1    GENERAL

1.1 SECTION INCLUDES

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

1.2 RELATED SECTIONS

A. Section 07900 - Joint Sealers: Perimeter sealant and backup materials.
B. Section 08710 - Door Hardware.
C. Section 08800 - Glazing.

1.3 REFERENCES

E. ASTM F 1642-04 – Low Level Blast Resistance.
F. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies.
G. SDI 100 - Recommended Specifications for Steel Doors and Frames.
H. UL 10B - Fire Tests of Door Assemblies.
I. UL 10C – Positive Pressure Fire Tests of Door Assemblies
J. UL 305 - Standard for Panic Hardware.
1.4 PERFORMANCE OPTIONS

A. Door opening assemblies:
   1. USDA accepted
   2. Maximum flame spread 25 in accordance with ASTM E 84, self-extinguishing in accordance with ASTM D 635.

B. Fire rated assemblies: UL 10B Label (Negative Pressure)

C. Fire rated assemblies: UL 10C Category B doors are labeled to require the installation of a listed edge sealing system to meet the requirements of UBC 7-2-1997 (Positive Pressure). This seal must be installed per the manufacturers’ instructions and may be factory or field applied.

D. Fire rated assemblies: UL 10C Category A doors are labeled for compliance with UBC 7-2-1997 (Positive Pressure) and do not require the application of an additional edge sealing system.


F. Storm/Impact Rated assemblies: In accordance with Florida Building Code Approval FL# 14551

1.5 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Submit Manufacturer’s data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

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

D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing fiberglass doors and frames with a minimum documented experience of 25 years.

B. Installer Qualifications: Company specializing in installation of fiberglass doors and frames with minimum three years documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in manufacturer's unopened, undamaged packaging, with manufacturer's labels intact.

B. Inspect and report damage to doors at time of delivery.

C. Store products in manufacturer's unopened packaging until ready for installation.

D. Store door assemblies in on end, to prevent damage to face corners and edges.

1.8 WARRANTY

A. Manufacturer’s Warranty: Fiberglass doors and fiberglass door frames have a lifetime guarantee against failure due to corrosion from the specific environment named at the time of purchase. Additionally, fiberglass doors and fiberglass door frames are guaranteed for ten years against failure due to materials and workmanship, including warp, separation or de-lamination, and expansion of the core.

PART 2 PRODUCTS

2.1 MANUFACTURERS


2.2 MATERIALS

A. Fiberglass Mat: Glass fiber chopped strand, minimum 2 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 COMPONENTS

A. Non-rated Fiberglass Reinforced Plastic (FRP) Doors:
   1. Thickness: 1-3/4 inches (45 mm).
   2. Construction:
      a. Core: Polypropylene Honeycomb, Polyisocyanurate Foam or Gypsum.
         Note: Gypsum core is utilized at Fire Rated door.
      b. Door Plates: Molded in one continuous piece, resin reinforced with hand-laid glass fiber mat, nominal 1/8 inch (3 mm) thick, minimum 15 mil gel-coated surface.
      c. Door Edges: Fiberglass mat reinforced, nominal 3/8 inch (9.5 mm) thick, machine tooled resin rich FRP matrix.
   3. Thermal Insulating Value: Up to ‘R’ factor 11 at Foam Core.

B. Door Frames:
   1. Non-Rated Construction: One-piece pultruded fiberglass reinforced plastic, minimum 1/4 inch wall thickness, jamb-to-head joints mitered and reinforced with FRP clips and stainless steel fasteners; conforming to SDI requirements for performance equivalent to 16 gage steel frames or Stainless Steel hollow metal frames.
   2. Fire Rated Construction: Molded Solid Fiberglass Door Frames or Stainless Steel hollow metal frames.
   3. Frame profile: 5-3/4 inches (146 mm) deep, 2 inches (51 mm) wide face; double rabbeted with 5/8 inch (16 mm) high stop.

C. Louvers in Non-rated Doors:
   1. Construction: Molded solid vanes; pultruded fiberglass reinforced plastic construction.

D. Lites in Non-rated Doors:
   2. Glazing: Specified in Section 08800.

E. Fiberglass Reinforced Plastic (FRP) Transoms: Match adjacent door construction and color.

F. Door Hardware: Specified Section 08710.
2.4 FABRICATION

A. Fiberglass Reinforced Plastic (FRP) Doors:
   1. Minimum glass fiber to resin ratio: 35 percent.
   2. Mortise for lockset, and recess for strike plate in lock stile.
   3. Embed 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. Verify openings are ready to receive work and opening dimensions and clearances are as indicated on approved shop drawings. Do not begin installation until openings have been properly prepared.

B. If opening preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Acclimate doors and frames to site conditions for a minimum of 24 hours before installation.

B. Do not remove labels from fire-rated doors and frames.

3.3 INSTALLATION

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

B. Use anchorage devices to securely fasten sliding door assembly to wall construction without distortion or imposed stresses.

C. Coordinate installation of thermal insulation at shim spaces at frame perimeter.

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

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

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

A. Adjust doors in accordance with door manufacturer'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 instructions.

3.5 CLEANING

A. Clean surfaces of door opening assemblies and sight-exposed door hardware in accordance with manufacturer's maintenance instructions.

B. Remove labels and visible markings.

3.6 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

3.7 SCHEDULE

A. Schedules: Refer to Door Schedule indicated on drawings.

END OF SECTION