

SECTION 082210 – FIBERGLASS DOORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Fiberglass doors
 - 2. Fire rated fiberglass doors.
 - 3. Fiberglass doors with glazed panels.
 - 4. Factory fitting fiberglass doors to frames and factory machining for hardware.

- B. Related Sections:

- 1. Division 06 Section "Interior Finish Carpentry" for interior fiberglass door frame trim.
 - 2. Division 06 Section "Exterior Finish Carpentry" for exterior fiberglass door frame trim.
 - 3. Division 08 Section "Hollow Metal Doors and Frames" for hollow metal frames for fiberglass doors.
 - 4. Division 08 Section "Door Hardware" for door hardware requirements.
 - 5. Division 09 Section "Interior Painting" for field finishing doors.
 - 6. Division 09 Section "Exterior Painting" for field finishing doors.

1.3 SUBMITTALS

- A. Product Data: For each type of door indicated. Include details of core and edge construction, glazing, and frame assemblies for openings. Include fire rating test results and criteria for rated assemblies indicated.

- B. Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door; construction details, including doors and frames, not covered in Product Data; location and extent of hardware blocking; and other pertinent data.

- 1. Door schedule including sizes, elevations and handing.
 - 2. Indicate dimensions and locations of reinforcing and holes for hardware.
 - 3. Indicate dimensions and locations of glazing and glazing products.
 - 4. Indicate fire-protection ratings for fire-rated doors and frames.
 - 5. Indicate weather stripping type and placement.

- C. Warranty: Sample of special warranty.

- D. Certificates: Manufacturer certification that doors and frame assemblies and materials comply with specified performance and physical properties signed by an authorized company representative.
- E. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain fiberglass doors and frames from single manufacturer.
- B. Quality Standard: In addition to requirements specified, comply with WDMA I.S.6, "Industry Standard for Wood Stile and Rail Doors."
- C. Fire-Rated Doors: Doors complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at as close to neutral pressure as possible according to NFPA 252.
- D. Preinstallation Conference: Conduct conference at Project site.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Comply with requirements of referenced standard and manufacturer's written instructions.
- B. Package doors individually in plastic bags or cardboard cartons.
- C. Mark each door on bottom rail with opening number used on Shop Drawings.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install doors until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Warping (bow, cup, or twist) more than 1/4 inch (6.4 mm) in a 42-by-84-inch (1067-by-2134-mm) section.
 - b. Telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch (0.25 mm in a 76.2-mm) span.

2. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors. Replacement under this warranty includes hanging, re-fitting hardware, refinishing, adjusting operation and repair of adjacent finish work damaged by replacement activities.
3. Warranty Period for Fiberglass Doors: Life of installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 1. TruStile, Inc.
 2. Jeld- Wen, Inc.
 3. Masonite, Inc.
 4. Therma –Tru Corp.

2.2 DOOR CONSTRUCTION, GENERAL

- A. General: Provide exterior door and frame assemblies complying with performance requirements indicated and capable of withstanding structural movement, thermally induced movement and exposure to weather without failure or infiltration of water to the building interior.
- B. Wind Loads: Provide exterior door and frame assemblies, including anchorages and fasteners, capable of with standing wind load design pressures calculated according to requirements of the American Society of Civil Engineers ASCE 7-98 “Minimum Design Loads for Buildings and Other Structures,” 6.4.2, “Analytical Procedure” and wind speed applicable at the project site as defined by the authorities having jurisdiction.
- C. Low-Emitting Materials: Provide doors made with adhesives and composite wood products that do not contain urea formaldehyde.
- D. WDMA I.S.6 Performance Grade: Standard Duty.
- E. Fire-Protection-Rated Doors and frames: Provide core specified or mineral core as needed to provide fire-protection rating indicated.
 1. Edge Construction: Provide edge construction with intumescent seals concealed by outer stile. Comply with specified requirements for exposed edges.
 2. Provide door and frame assemblies tested and labeled to indicated ratings.
 3. Provide door and frame assemblies conforming to UL 10C and ASTM E 2074.
 4. Provide manufacturer’s standard continuous weather stripping integral with frame assembly.

F. Polyurethane Core Doors:

1. Core: Non CFC polyurethane product complying with requirements of referenced quality standard and U-value of 0.14 BTU/SF x degree F x hr. minimum and testing and inspecting agency for fire rating indicated.
2. Blocking: Provide composite blocking with improved screw-holding capability approved for use in doors of fire-protection ratings indicated as needed to eliminate through-bolting hardware.
3. Edge Construction: Kiln dried lumber edge construction with laminated lumber core, decay proof bottom rail and laminated-edge construction at hinge stiles with improved screw-holding capability and split resistance. Comply with specified requirements for exposed edges.

2.3 DOORS FOR OPAQUE FINISH

A. Exterior Solid-Core Doors .

1. Grade: Custom.
2. Faces: Fiberglass.
3. Texture: Manufacturer's standard wood grain texture.
4. Factory primed for field finish painting.
5. Core: Manufacturer's standard.
6. Construction: Manufacturer's standard.
7. Thickness: 1 ¾ inches.
8. WDMA I.S.6 Performance Grade: Standard Duty.
9. Thermal insulating value: 'U' value = 1.10 minimum.
10. Acoustic performance: Sound Transmission Class, STC 30 minimum.
11. Face Panel Design: As indicated on drawings.

B. Exterior Solid-Core Doors with glazed panel.

1. Grade: Custom.
2. Faces: Fiberglass.
3. Core: Manufacturer's standard.
4. Construction: Manufacturer's standard.
5. Thickness: 1 ¾ inches.
6. Glazed Panel; Manufacturer's standard ¾ inch tempered insulating glass unit with Low 'E' coating and argon fill, U value = 0.40 minimum, SHGC = 0.25 minimum.
7. Thermal insulating value (door panel): 'U' value = 1.10 minimum.
8. WDMA I.S.6 Performance Grade: Standard Duty.
9. Face design: As indicated on drawings.

2.4 FABRICATION

- A. Coordinate with hardware manufacturers to ensure that doors are properly prepared to receive specified hardware components.

- B. Fabricate doors in accordance with ANSI/WDMA IS-1A requirements as minimum criteria.
- C. Fabricate fire rated doors in accordance with manufacturer's label include Warnock-Hersey as a minimum criteria. Attach fire rating label to door panel as required by rating testing agency.
- D. Factory fit doors to suit frame-opening sizes indicated. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.
 - 1. Comply with requirements in NFPA 80 for fire-rated doors.
- E. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3. Comply with final hardware schedules, door frame Shop Drawings, DHI A115-W series standards, and hardware templates.

2.5 SHOP PRIMING

- A. Doors for Opaque Finish: Shop prime doors with one coat of wood primer specified in Division 09 Section "Interior Painting". Seal all four edges, edges of cutouts, and mortises with primer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine doors and installed door frames before hanging doors.
 - 1. Verify that frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with level heads and plumb jambs.
 - 2. Reject doors with defects.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Hardware: For installation, see Division 08 Section "Door Hardware."
- B. Installation Instructions: Install doors to comply with manufacturer's written instructions and the referenced quality standard, and as indicated.
 - 1. Install fire-rated doors in corresponding fire-rated frames according to NFPA 80, NFPA 101 and labeling testing agency requirements. Comply with requirements of the authorities having jurisdiction.
- C. Field - Fitted Doors: Align in frames for uniform clearance at each edge.

3.3 ADJUSTING

- A. Operation: Re-hang or replace doors that do not swing or operate freely.
- B. Finished Doors: Replace doors that are damaged or that do not comply with requirements. Doors may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION 082210