

SECTION 08 14 16 -FLUSH WOOD 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. Solid-core doors with wood-veneer faces.

- B. Related Sections:

- 1. Division 09 Section "Interior Painting" for field finishing stile and rail doors.
 - 2. Division 09 Section "Staining and Transparent Finishing" for field finishing stile and rail doors.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.

- 1. Indicate door core materials, thickness, construction, veneer species, cut and matching requirements, and factory matching and finishing criteria, at a minimum.

- B. LEED Submittals:

- 1. Product Data for Credits MR 3.1 and MR 3.2: For reused products (salvaged and/or refurbished), submit invoices and documentation indicating origin and actual material costs (taxes, fees, shipping, labor, profit, etc. not included) and estimated material costs if purchased brand new from manufacturer.
 - 2. Product Data for Credits MR 4.1 and MR 4.2: For products having recycled content, submit invoices and documentation from manufacturer indicating percentages (by weight) of post-consumer and pre-consumer recycled content. Include material costs (taxes, fees, shipping, labor, profit, etc. not included) for each product having recycled content.
 - 3. Manufacturing Data for Credits MR 5.1 and MR5.2: Submit invoices and documentation indicating location of manufacture and locations of extraction and/or harvest for each raw material sourced within 500 miles of the project site. Indicate method of calculating distance from location to project site.
 - 4. Product Data for Credit MR 6: Submit invoices and documentation of rapidly renewable materials provided. For products containing a mix of materials, provide documentation from manufacturer showing amount of rapidly renewable content by weight.

5. Certificates for Credit MR 7: If applicable, submit invoices showing material costs (taxes, fees, shipping, labor, profit, etc. not included) and the vendor's Forest Stewardship Council (FSC) number, documentation indicating chain-of-custody, and lists identifying FSC-certified products on an item-by-item basis, as documentation that an FSC-accredited organization has certified that the wood or wood products are from a well-managed forest.
 6. Product Data for Credit IEQ 4.1: Submit cut sheets and/ or material safety data sheets (MSDS) for all sealants and installation adhesives, with VOC levels highlighted. (Information on adhesives and sealants used on the exterior surface of the building – defined as outside of the waterproofing – are not required.)
 7. Product Data for Credit IEQ 4.4: Submit cut sheets, material safety data sheets (MSDS), and/ or other documentation indicating that the bonding agent for all composite wood and agrifiber products contains no added urea formaldehyde.
- C. Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; location and extent of hardware blocking; and other pertinent data.
1. Indicate dimensions and locations of mortises and holes for hardware.
 2. Indicate dimensions and locations of cutouts.
 3. Indicate requirements for veneer matching.
- D. Samples for Verification: Corner sections of doors, approximately 4 by 6 inches, minimum, with door faces and edgings representing typical range of color and grain for each species of veneer and core required.
- E. Product Certificates: For each type of door, from manufacturer.
- F. Warranty: Sample of manufacturer's standard warranty.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain flush wood doors from single manufacturer.
- B. Quality Standard: In addition to requirements specified, comply with WI's "Manual of Millwork."
1. Provide WI-Certified Compliance Certificate indicating that doors comply with requirements of grades specified.
 2. Provide WI-Certified Compliance Certificate for installation.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Comply with manufacturer's written instructions and requirements of quality standard referenced in Part 2.

- B. Mark each door on top and bottom edge with opening number used on Shop Drawings. Mark doors such that marks can be easily removed or concealed.
- C. Package for delivery to best protect finish surfaces while using the least amount of single-use packaging as possible. If possible, package and ship product using reusable blankets and fabrics or reusable cardboard and crate systems.
- D. Protect materials against weather and contact with damp or wet surfaces from time of delivery through time of installation. Store materials inside under cover and keep them dry and protected against damage from weather, condensation, direct sunlight, construction traffic, and other causes.
- E. Deliver materials only when environmental conditions meet requirements specified for installation areas. If materials must be stored in other than installation areas, store only where environmental conditions meet requirements specified for installation areas.
- F. When storing prior to installation, raise off floor on pallets, stack flat with protective material between to eliminate chance of creating nicks, scratches, and other imperfections and damage to finish surfaces, wrap weather-tight, and provide for air circulation within and around stacks and under temporary coverings.
- G. Do not store materials near other materials that may off-gas or emit harmful fumes, such as kerosene heaters, fresh paint, adhesives, etc.
- H. Do not allow materials to become damp. Maintain temperatures at 60°F or higher, and humidity between 20% and 60% prior to, during and after installation.

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 temporary ventilation 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 in a 36-by-84-inch section.
 - b. Telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch span.
 - 2. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.
 - 3. Warranty Period for Solid-Core Interior Doors: Life of installation.

PART 2 - PRODUCTS

2.1 DOOR CONSTRUCTION, GENERAL

- A. General: Use only materials that comply with referenced standards and other requirements specified.
 - 1. Assemble interior doors, frames, and sidelites, including components, with either dry-use or wet-use adhesives complying with ASTM D 5572 for finger joints and with ASTM D 5751 for joints other than finger joints. All adhesives used on site shall meet the South Coast Air Quality Management District, Rule 1168, in order to meet LEED requirements for IEQ credit 4.1.
- B. Low-Emitting Materials: Provide doors made with adhesives that are low- or no-VOC and composite wood products that do not contain urea-formaldehyde resins.
- C. Particleboard-Core Doors:
 - 1. Particleboard made from wood particles, with binder containing no urea-formaldehyde resin, complying with ANSI A208.1.
 - 2. Particleboard: Straw-based particleboard complying with ANSI A208.1, Grade LD-2 or M-2, except for density.
 - 3. Medium-density fiberboard made from wood fiber, with binder containing no urea-formaldehyde resin, complying with ANSI A208.2, Grade 130.
 - 4. Blocking: Provide wood blocking in particleboard-core doors as needed to eliminate through-bolting hardware.

2.2 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. VT Industries, Inc. Heritage Collection
 - 2. Oregon Door Company

2.3 VENEERED-FACED DOORS FOR TRANSPARENT FINISH

- A. Interior Solid-Core Doors:
 - 1. Grade: Premium, with Grade A faces.
 - 2. Wood Species: White Birch with wheat finish.
 - 3. Cut: Plain sliced (flat sliced).
 - 4. Match between Veneer Leaves: Pleasing match.
 - 5. Assembly of Veneer Leaves on Door Faces: Balance match.
 - 6. Pair and Set Match: Provide for doors hung in same opening or separated only by mullions.
 - 7. Room Match: Match door faces within each separate room or area of building. Corridor-door faces do not need to match where they are separated by 10 feet or more.

8. Room Match: Provide door faces of compatible color and grain within each separate room or area of building.
9. Exposed Vertical and Top Edges: Same species as faces.
10. Core: FSC NAUF particle board, Urea-formaldehyde-free particleboard, straw-, wheat- or other compressed agrifiber board.
11. Construction: Five or seven plies. Stiles and rails are bonded to core, then entire unit abrasive planed before veneering.
12. WDMA I.S.1-A Performance Grade: Heavy Duty.

2.4 DOORS FOR OPAQUE FINISH

A. Interior Solid-Core Doors:

1. Grade: Custom.
2. Faces: Hardboard or MDF.
 - a. Hardboard Faces: AHA A135.4, Class 1 (tempered) or Class 2 (standard).
 - b. MDF Faces: ANSI A208.2, Grade 150 or 160.
3. Exposed Vertical and Top Edges: Any closed-grain hardwood.
4. Core: Urea-formaldehyde-free particleboard, straw-, wheat- or other compressed agrifiber board.
5. Construction: Five or seven plies. Stiles and rails are bonded to core, then entire unit abrasive planed before veneering.
6. WDMA I.S.1-A Performance Grade: Heavy Duty.

2.5 FABRICATION

- A. Factory fit doors to suit frame-opening sizes indicated. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.
- B. Side Panels: Fabricate matching panels with same construction, exposed surfaces, and finish as specified for associated doors.
- C. Openings: Cut and trim openings through doors in factory.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine doors, substrates, and installed door frames, with Installer present, for suitable conditions where wood doors will be installed before hanging doors.
 1. Verify that installed 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. Install wood doors to comply with manufacturer's written instructions, WI's "Manual of Millwork," and other requirements specified.

C. Field-Fitted Doors: Align and fit doors in frames with uniform clearances and bevels as indicated below; do not trim stiles and rails in excess of limits set by manufacturer or permitted with fire-rated doors. Machine doors for hardware. Seal edges of doors, edges of cutouts, and mortises after fitting and machining.

D. Factory-Fitted Doors: Align in frames for uniform clearance at each edge.

3.3 ADJUSTING

A. Operation: Rehang 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.

3.4 WASTE MANAGEMENT

A. Separate and recycle waste materials in accordance with the Waste Management Plan and to the maximum extent possible.

END OF SECTION