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## Product Guide Specification For Nonrated & 20-Minute Rated Doors

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Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) *MasterFormat*, *SectionFormat*, and *PageFormat*, from the CSI *Manual of Practice*. The section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate with other specification sections and drawings. Five-digit section numbers are from *MasterFormat*, 1995 edition. Delete all "Specifier Notes" when editing this section.

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### SECTION 08212

#### STILE AND RAIL WOOD DOORS

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Specifier Notes: This section covers Woodtech Trading non-rated and fire rated architectural stile and rail wood doors, door frames and sidelites. Doors can be manufactured to custom specifications. Consult Woodtech Trading for assistance in editing this section for specific applications.

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#### PART 1 GENERAL

##### 1.01 SECTION INCLUDES

- A. Stile and rail wood doors.
- B. Door Frames.
- C. Sidelites

##### 1.02 RELATED SECTIONS

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Specifier Notes: Edit the following list as required for the project. List other sections with work directly related to the stile and rail wood doors.

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- A. Section 06100 – Rough Carpentry.
- B. Section 06200 – Finish Carpentry.
- C. Section 06460 – Wood Door Frames.
- D. Section 08211 – Flush Wood Doors.
- E. Section 08710 – Door Hardware.
- F. Section 08810 – Glass.
- G. Section 09930 – Stains and Transparent Finishes.

##### 1.03 REFERENCES

- A. AWI Quality Standards.
- B. NFPA 80 – Fire Doors and Windows.
- C. Warnock Hersey Certification Listings for Fire Doors.

#### 1.04 SUBMITTALS

- A. Comply with requirements of Section 01330 – Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including performance and physical data and installation instructions for non-rated and fire-rated doors.
- C. Shop Drawings: Submit shop drawings indicating locations, handling, sizes, elevations, materials (glass), (and) frames (, and sidelites).
- D. Certifications: Submit manufacturer's certification stating that doors meet or exceed specified requirements (, including requirements for fire-rated doors).
- E. Samples:
  - 1. Submit three random samples of proposed veneers to show natural color and grain appearance, for approval by Architect.
  - 2. Submit one sample, 12" x 12", cut from top corner of door to show door construction.

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Specifier Notes: Delete the following paragraph if doors are to receive field finishing. Consult with Woodtech Trading if factory finishing is desired.

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- 3. Submit three samples of proposed factory finish on veneers to show natural color and grain appearance for approval by Architect.

#### 1.05 QUALITY ASSURANCE

- A. Conform to AWI Quality Standards, Section 1400, Premium Grade.
- B. Conform to NFPA 80.
- C. Conform to Warnock Hersey Certification Listings for Fire Doors.

#### 1.06 DELIVERY, STORAGE AND HANDLING

- A. Delivery: Deliver doors to site in manufacturer's original, unopened containers and packaging, with labels clearly indicating manufacturer and material.
- B. Storage:
  - 1. Store doors in accordance with manufacturer's instructions.
  - 2. Store doors in a clean, dry, well-ventilated building, in an area protected from damage and sunlight.
  - 3. Store flat on a level surface.
  - 4. Do not store directly on concrete.
  - 5. Cover doors to keep clean and avoid discoloration. Use a covering, which allows air circulation and does not permit light to penetrate.
  - 6. Do not subject doors to sudden changes in temperature or humidity.
  - 7. Relative Humidity: Between 30 and 60 percent.
- C. Handling:
  - 1. Protect doors during handling and installation to prevent damage.
  - 2. Do not drag doors across one another or other surfaces.
  - 3. Handle doors with clean gloves to avoid smudging or staining.

#### 1.07 WARRANTY

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Specifier Notes: Consult Woodtech Trading regarding warranty limitations.

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- A. Stile and rail wood doors shall be free from defects in material and workmanship under normal use and service.
  - 1. Exterior doors: Two years from date of delivery for painted doors.
  - 2. Interior doors: Lifetime.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. Woodtech Trading Company, 455 Fourth Avenue E.N., P.O. Box 2609, Columbia Falls, MT 59912, phone (800) 775-1352, fax (800) 775-1353.

2.02 STILE AND RAIL WOOD DOORS

- A. Doors:
1. Grade: AWI Premium Grade.
  2. (Exterior) (Interior).
  3. Rating: (Fire-rated with 20-minute rating) (Nonrated).
  4. (Single Door) (Double Door).
  5. Model Number: WT \_\_\_\_\_.
  6. Number of Panels: \_\_\_\_\_.
  7. Door Size:
    - a. Width: \_\_\_\_\_.
    - b. Height: \_\_\_\_\_.
    - c. Thickness: 1-3/4".
  8. Lites:
    - a. Type: \_\_\_\_\_.
    - b. Width: \_\_\_\_\_.
    - c. Height: \_\_\_\_\_.
    - d. Thickness: \_\_\_\_\_.
  8. Louvers: (Slat) (Sight-proof).
- B. Door Construction:
1. Stile and rails veneered, (finger-jointed Douglas Fir Core) (Stave Pine Core) with 3/4" solid stock matching edgebands.

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Specifier Notes: Specify requirements for special moulding.

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2. Mouldings and sticking of manufacturer's standard design, unless otherwise indicated on the drawings.

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Specifier Notes: Nail holes are shop puttied on stain grade doors only.

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3. Mitre corners and install mouldings and sticking using nails, staples or glue.
  4. Hardwood moulding required for fire-rated doors.
  5. Panels: (Veneered medium density fiberboard) (Three-ply raised).
- C. Door Thickness:
1. Stiles, Rails and Mullions: (1-3/8") (2-1/4").
  2. Panels:
    - a. Raised Veneered: 1-3/16"
    - b. Flat Veneered: (3/4") (1/2") (1/4")
    - c. Three-Ply Raised Panels:
      1. Solid Wood Faces: 3/4"
      2. Overall: 1-21/32".
      3. Veneer for Stiles and Rails: Minimum 1/8" after finish sanding.

D. Lumber:

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Specifier Notes: Occasionally, a fire-treated Maple band is required to meet construction standards for 20-minute fire rating in pair applications.

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1. AWI Quality Standards, Section 100-S-4, Grade I hardwoods.
2. Moisture Content: Pre-glue moisture content between 6 and 8 percent.  
Specifier Notes: Choose one of the following species and delete the others. Consult Woodtech Trading for availability of other species.
3. Species: (African Mahogany) (American Black Walnut) (Ash) (Birch) (Cherry) (Douglas Fir) (Honduras Mahogany) (Maple) (Philippine Mahogany) (Poplar) (Red Oak) (White Oak) ( \_\_\_\_\_ ).

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Specifier Notes: Panels typically require a 3-ply construction with face-matching hardwood over particleboard core, or solid stock construction, depending on panel size and project requirements.

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- E. Core for Stiles, Rails and Mullions:
1. Free of warp or bow and calibrated to a 0.003 inch tolerance before veneer application.
  2. Moisture Content: Pre-glue moisture content between 6 and 8 percent.
  3. Material: Laminated, (fingerjointed Douglas Fire core) (stave Pine core) or denser material.
- F. Gluing:
1. Glue: Type I, exterior, waterproof.
  2. Press Time:
    - a. Parts: Minimum four hours.
    - b. Assembly: Minimum five hours.

## 2.03 DOOR FRAMES

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Specifier Notes: Coordinate with the door schedule on the drawings. Consult Woodtech Trading for assistance in editing this article for specific applications.

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- A. Type: (Single rabbet) (Applied T-stop) (Applied T-Throated).

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Specifier Notes: Consult Woodtech Trading for labeling requirements of 45 minute rated frames.

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- B. Rating: (Fire-rated with (20) (45) (60) minute rating) (Non-rated).
- C. Material: Match veneer on doors.
- D. Dimensions:
1. Frame Depth: \_\_\_\_\_.
  2. Stop Height: \_\_\_\_\_.
  3. Rabbet Width: \_\_\_\_\_.
  4. Kerf: \_\_\_\_\_.
  5. Casing Size: \_\_\_\_\_.
  6. Door Size: \_\_\_\_\_.

## 2.04 SIDELITES

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Specifier Notes: Coordinate with the door schedule on the drawings. Consult Woodtech Trading for assistance in editing this article for specific applications.

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- A. Material: Match veneer on doors.
- B. Dimensions:
  - 1. Frame Thickness: \_\_\_\_\_.
  - 2. Stop Height: \_\_\_\_\_.
  - 3. Casing Size: \_\_\_\_\_.
  - 4. Exposed Glass: \_\_\_\_\_.
  - 5. Size:
    - a. Width: \_\_\_\_\_.
    - b. Height: \_\_\_\_\_.

## 2.05 FABRICATION

- A. Fabricate non-rated doors in accordance with AWI Premium Quality Standards and as specified.
- B. Fabricate fire-rated doors in accordance with AWI Premium Quality Standards, UL or Warnock Hersey requirements, and as specified.
- C. Attach fire-rating label to fire-rated doors.
- D. Factory machine doors for hardware in accordance with NFPA 80 and hardware requirements and dimensions as specified in Section 08710 – Door Hardware.

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Specifier Notes: Factory pre-fitting of doors is required for fire-rated doors.

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- E. Factory pre-fit doors for frame opening dimensions indicated on shop drawings.

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Specifier Notes: Specify either factory or field finishing of doors. Field finishing is specified in Article 3.02 Preparation. Choose one and delete the other. Consult Woodtech Trading if factory finishing is desired.

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## 2.06 FACTORY FINISHING

- A. Conform to AWI Quality Standards, Section 1500, Factory Finish, System 2, 4 or 6.

## 2.07 FACTORY TOLERANCES

- A. Size:
  - 1. Thickness: +/- 1/16".
  - 2. Length: +/- 1/16".
  - 3. Prefit Width: +/- 1/32".
- B. Squareness: 1/8" maximum, diagonal measurement difference.
- C. Factory Hardware Preparation: +/- 1/32" on hinge preparation and lock preparation cutouts.
- D. Warp: 1/4" maximum, in any 3/6 width by 7/0 length of door.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Inspect and verify frames are solidly anchored, allowing no deflection when doors are installed.
- B. Install doors in frame openings that are plumb, level and within tolerance.
- C. Notify the Architect of conditions that would adversely affect the installation or subsequent utilization of the doors. Do not proceed with installation until unsatisfactory conditions are corrected.

### 3.02 PREPARATION

- A. Acclimate doors to project conditions for a minimum of 24 hours before installation.
- B. Do not remove labels from fire-rated doors.
- C. Field Finishing:
  - 1. Field Finish doors in accordance with door manufacturer's instructions and as specified in Section 09930 – Stains and Transparent Finishes.
  - 2. Final Block Sanding: Perform a final block sanding immediately before field finishing.

### 3.03 INSTALLATION

- A. Install doors at locations indicated on the drawings and in accordance with manufacturer's instructions.
- B. Install doors in accordance with AWI Quality Standards, (NFPA 80,) and to UL and Warnock Hersey requirements.
- C. Install at least two hinges on doors up to 72" in height and one additional hinge for each thirty inches of additional height.
- D. Install door frames (and sidelites) as specified in Section 06460 – Wood Door Frames.
- E. Install door hardware as specified in Section 08710 – Door Hardware.
- F. Install glass in doors (and sidelites) as specified in Section 08810 – Glass.

### 3.03 ADJUSTING

- A. Adjust doors for smooth operation without binding.

END OF SECTION