



Section 08 14 16 - Flush Wood Doors

This section is written utilizing WDMA Premium grade as the quality standard. Refer to WDMA I.S. 1- A-2004 and LEED 2009 v3. Marshfield doors are used as the base for this section. Provision is made for adding other proprietary names of equivalent quality products.

The WDMA I.S. 1-A standard is a general industry standard that provides quality levels for the construction of architectural wood flush doors. Function, performance and aesthetics are combined in producing a wood flush door for a particular opening. WDMA standards require the designation of a performance duty level in addition to an aesthetic grade. Performance duty levels are based on the amount and severity of use. There are three levels of duty based on performance values of eight different attributes. It is the responsibility of the specifier to select the best door for each application and environment

Door types included in this section are solid core wood doors; non-rated and fire-rated, both neutral and positive pressure rated flush or glazed design; with or without louvers; wood veneer and high pressure door laminate; factory fitting, machining and factory finishing.

For additional information visit our web site <http://www.marshfelddoors.com>.

This section includes special door types such as acoustic and lead lined.
Section numbers are from *MasterFormat 2004 Edition*.

PART 1 GENERAL

1.01 Summary

A. Section Includes:

1. Solid core veneer-faced doors
2. Fire-resistant composite core doors
3. Factory finishing
4. Glazing stops and preparation of flush doors to receive glazing; glazing specified elsewhere
5. Sizing by manufacturer
6. Machining by manufacturer

1.2 RELATED SECTIONS

(List only the following sections that have a direct bearing on this section)

- A. Section 06 20 00 - Finish Carpentry
- B. Section 06 40 00 - Architectural Woodwork
- C. Section 08 06 00 - Schedules for Openings
- D. Section 08 11 00 - Metal doors and frames
- E. Section 08 14 33 - Stile and rail wood doors
- F. Section 08 70 00 - Finish hardware

- G. Section 08 80 00 - Glazing (Delete when factory glazing is specified).
- H. Section 08 91 26 - Louvers

1.3 REFERENCES AND REGULATORY REQUIREMENTS

- A. ASTM E152 – Methods of Fire Tests of Door Assemblies.
- B. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies.
- C. UBC 7-2, 1997, IBC 2003, IBC 2006 or NFPA 5000 (Choose applicable code)
- D. UL 10 (c) – Positive Pressure Fire Tests of Door Assemblies [or]
UL 10 (b)- Neutral Pressure Fire Tests of Door Assemblies
- F. NFPA 80 – Standard for Fire Doors and Other Opening Protectives
- G. Quality Standards:
 - 1. WDMA Industry Standard I.S. 1-A-2004 (Choose WDMA or AWS but not both)
 - 2. AWS Edition 1-2009
 - 3. ANSI A115. W Series, Wood Door Hardware Standards.
 - 4. FSC – Forest Stewardship Council
 - 5. SCS – Scientific Certification Systems
 - 6. LEED-Leadership in Energy and Environmental Design
- H. Labeling Agencies
 - 1. Intertek Testing Services-Warnock Hersey (ITS-WH) [or]
 - 2. Underwriters Laboratories, Inc. (UL)

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Shop drawings: Illustrate door opening criteria, elevations, sizes, types, swings, undercuts, special beveling, hardware blocking in fire-resistant composite core doors, identify cutouts.
- C. Indicate compliance with specified fire rating (positive pressure or neutral pressure).
- D. Product Data: Indicate door core materials, thickness, construction, veneer species (veneer color selection required in Ash, Birch and Maple). See WDMA “A Specifiers Guide to Door Face Veneers” for cut and matching requirements, factory machining and factory finishing criteria.
- E. Construction samples: Submit one or more of manufacturer’s standard samples demonstrating door construction.
- F. Finish samples: Sample to illustrate the color of the specified door face materials.
- G. Manufacturer’s full lifetime warranty
- H. Glass size, type, pattern and thickness for factory glazed doors.
- I. Sustainable Attributes (specify as needed)
 - 1. Recycled Content -MR 4
 - 2. Regional Manufacturing-MR 5
 - 3. Rapidly Renewable Materials-MR 6
 - 4. Certified Wood (FSC)-MR 7
 - 5. No Added Urea Formaldehyde-EQ 4.4
 - 6. Indoor Advantage Gold-Third party certification of finished products meeting low-emitting material requirements.

1.5 QUALITY ASSURANCE

- A. Meet or exceed WDMA I.S.1-A Premium Grade
- B. Labeled Doors: Listed and conform to the requirements of:
 - 1. Intertek Testing Services-Warnock Hersey (ITS-WH) [or]
 - 2. Underwriters Laboratories (UL).

1.6 DELIVERY STORAGE AND HANDLING AND SITE CONDITIONS

- A. Deliver, store, protect and handle products under provisions of WDMA and AWS, and manufacturer's care and handling instructions.
- C. Accept doors on site in manufacturer's standard packaging. Inspect for damage. Do not store in damp or wet areas. HVAC systems should be operating and balanced prior to arrival of doors. Acceptable humidity shall be no less than 25% or greater than 55%. **(NOTE: Any claim for warp, bow, twist or telegraphing may be denied if required humidity requirements are not maintained).**
- D. Species such as Cherry, Walnut, Aniegre and Mahogany are light sensitive. Protect doors from exposure to natural and artificial light after delivery.

1.7 COORDINATION

- A. Coordinate work under provisions of Section 01 62 00.
- B. Coordinate the work with door opening construction, door frame and door hardware installation with a pre-installation conference.

1.8 WARRANTY

- A. Provide manufacturer's warranty to the following term:
 - 1. Interior Solid Core Doors: "Full Life of Original Installation" including hanging and finishing if door(s) do not comply with warranty tolerance standards.
 - 2. Coverage for delamination, warping, bow, cup and telegraphing of core construction as outlined in the WDMA and AWS Standards.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Marshfield DoorSystems, Inc.
 - 1. Marshfield DoorSystems PerfectMatch™ Doors
 - 2. <http://www.marshfielddoors.com/Perfectmatch.html>
- B. No Substitutions

2.2 MATERIALS

- A. **WORKMANSHIP**
 - 1. Comply with WDMA workmanship for veneer faces, vertical edges, crossbands, horizontal edges and dimensional tolerances.
- B. **DOOR CONSTRUCTION GRADE**
 - 1. Except as otherwise shown on the drawings fabricate the work of this section to WDMA Premium Grade.
 - 2. Standard construction is per Heavy Duty Performance Levels.
- C. **WOOD DOOR FACING**
 - 1. Marshfield DoorSystems PerfectMatch™ Low Pressure Decorative Laminate.
- D. **VENEER MATCHING**
 - 1. Not Applicable with PerfectMatch™ Low Pressure Decorative Laminate face material.
- E. **ASSEMBLY OF SPLICED VENEERS**
 - 1. Not Applicable with PerfectMatch™ Low Pressure Decorative Laminate face material.
- F. **DOORS IN PAIRS OR SETS**
 - 1. Specify per project requirements. Refer to WDMA G-9. Door schedule

shall reflect pairs and sets by door numbers, including doors separated by a mullion.

G. GLAZING OF FLUSH WOOD DOORS

1. Glazing shall be by the wood door manufacturer
 - a. Glass as selected by architect from manufacturers standard offerings
 - b. PyroEdge-20 Fire and Safety Rated Glass. (An excellent replacement for wire glass in educational facilities)
 - c. Specialty glass

2.3 FABRICATION

A. DOOR CORE CONSTRUCTION

1. Non-rated Solid Core
 - a. Heavy Duty Wood Based Particleboard, PC

B. VERTICAL EDGES (STILES)

1. Non-rated and 20-minute rated
 - a. Edges to be compatible with face material.
2. 20-minute rated pairs (No metal edges or astragal required).
 - a. Manufacturers standard as required for fire-approval.
3. Fire-resistant composite Core
 - a. Manufacturers standard as required for fire approval.

C. HORIZONTAL EDGES (RAILS)

1. Manufacturer's standard. (MDF top and bottom rails not permitted)
2. As required to meet positive pressure ratings.

D. ADHESIVES

1. Face Adhesive: Per WDMA TM-6

E. FACE MATERIAL

1. Marshfield DoorSystems PerfectMatch™ Low Pressure Decorative Laminate.

F. INNERBLOCKING FOR FIRE-RESISTANT COMPOSITE CORE DOORS

1. Supply hardware reinforcement for all surface applied hardware where required by manufacturer to eliminate the use of through-bolts.

G. MACHINING

1. Factory fit and machine doors for frame and finish hardware in accordance with hardware and NFPA 80 requirements and dimensions.
2. Do not machine for surface hardware. Apply appropriate fire labels.

DO NOT TRIM POSITIVE PRESSURE RATED DOORS FOR WIDTH.

2.4 ACCESSORIES

A. LOUVERS

1. Wood louvers as detailed on the elevations.
2. Louvers to be furnished and installed by the door manufacturer.
3. Metal Louvers: Specified in Section 09 91 26.

B. GLAZING STOPS

1. Non-Rated and 20 minute
 - a. Wood, of the same species/compatible with door species (or)
 - b. Manufacturers Standard Metal Vision Frames.
 - c. W-8 Reveal Lite Molding
2. Fire-Rated 45 minute or above
 - a. Flush, wood veneer clad PVC, of same species/compatible to door facing (or)

- b. Veneer wrapped rolled steel, of same species/compatible to door facing (or)
 - c. Manufacturers Standard Metal Vision Frames.
 - d. Verify compatibility of glazing system with positive pressure requirements.
 - e. As specified in Section 08 80 00.
- C. **GLASS & GLAZING IN WOOD DOORS**
- 1. Glass and glazing provided by the wood door manufacturer
- D. **MEETING EDGES FOR PAIRS OF FIRE RATED DOORS**
- 2. Meet Positive Pressure requirements for Category A (concealed intumescent)
- APPLIED MOLDINGS:**
- 1. As selected from manufacturer's standard profiles and install as detailed.
 - 2. Applied moldings to be affixed to the door without the use of nails or staples. No visible fasteners are permitted.

2.5 FACTORY FINISH

- A. Not Applicable with PerfectMatch™ Low Pressure Decorative Laminate face material.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Notify Architect of any conditions that would adversely affect the installation or subsequent use of the doors. Do not begin installation until all conditions are acceptable.
- B. Do not install doors in frame openings that are not plumb or are out of tolerance for size or alignment.
- C. Verify that opening sizes and tolerances are acceptable and ready to receive this work.

3.2 INSTALLATION

- A. Install fire-rated and non-rated doors in accordance with NFPA 80, manufacturers' instructions and to ITS-WH/UL requirements.
- B. Trim non-rated door width by cutting equally on both jamb edges.
- C. Trim door height by cutting bottom edges to a maximum 3/4 inch (19-mm).
- D. Trim fire door height at bottom edge only, in accordance with fire rating requirements.
- B. **DO NOT TRIM POSITIVE PRESSURE RATED DOORS FOR WIDTH**
- F. Pilot drill screw and bolt holes using templates provided by hardware manufacturer. [Use threaded through bolts for half surface hinges].
- G. *EXERCISE CAUTION WHEN DRILLING PILOT HOLES AND INSTALLING HINGES SO THAT PILOT HOLES ARE NOT OVER DRILLED AND SCREWS ARE NOT OVER TORQUED. FOLLOW MANUFACTURERS INSTALLATION INSTRUCTIONS FOR POSITIVE PRESSURE DOORS.*
- H. Coordinate installation of doors with installation of frames and hardware
- I. Manufacturer shall install glass in wood doors
- J. Install door louvers and light kits plumb and level.
- K. Reseal or refinish any doors that required site alteration.

3.3 WARRANTY TOLERANCES

- A. Conform to WDMA standards and testing methods for warp, cup, bow and

telegraphing.

3.4 ADJUSTING

- A. Adjust work under provisions of Section [_____].
- B. Adjust doors for smooth and balanced door movement.

3.5 CLEANING

- A. Clean doors immediately after installation in accordance with manufacturers Care and Handling Instructions.

3.6 PROTECTION

- A. Protect installed doors from damage during construction.

END OF SECTION