

**Proposed Specification**  
**Section 08210**  
**FLUSH WOOD VENEER DOORS**

**PART I, GENERAL**

1.1 WORK INCLUDED IN THIS SECTION

- A. The General Conditions, Supplementary Conditions and General Requirements apply to all work in this section.
- B. The work includes, but is not limited to, furnishing flush wood veneer doors.

1.2 RELATED WORK IN OTHER SECTIONS

- A. Rough Carpentry, Section 06100.
- B. Millwork and Trim, Section 06200.
- C. Hollow Metal Doors and Frames, Section 08110.
- D. Glass and Glazing, Section 08800.
- E. Louvers provided and installed under Section 15800.

1.3 SUBMITTALS

- A. Comply with requirements of Section 01300.
- B. Submit complete schedule indicating dimensions, cutouts, hardware sets, species, and other pertinent data which references the individual architectural door mark number as shown on the plan sheets.
- C. Submit Manufacturer's data sheets, completely describing door construction, WDMA I.S. 1-A (formerly NWWDA) and AWI Classifications.
- D. Door Supplier to submit written certification on the supplier's letterhead that the doors provided shall conform to every aspect of this specification.
- E. Door finish samples shall accompany submittals. The samples will show the range of color variation.
- F. Warranty statement shall accompany the submittal.
- G. Include documentation relating to environmental requirements, FSC certification/SCS approvals.

#### 1.4 QUALITY ASSURANCE

- A. Flush wood veneer doors shall conform to the latest edition of the following standard: WDMA I.S. 1-A requirements for "Premium Grade".
- B. Tolerances for warp, telegraphing, squareness, and prefitting dimensions as per the latest edition of WDMA I.S. 1-A.
- D. Where fire rated doors are required, provide doors labeled by Intertek/Warnock Hersey. Construction details and hardware application shall be as approved by the labeling agency.
- E. Manufacturer shall be notified when doors are to meet UBC 7-2-1997 requirements for positive pressure opening assemblies in areas where this has been adopted by local authorities having jurisdiction.
- F. Provide doors manufactured by utilizing FSC/SCS core material where appropriate.

#### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Doors shall be individually poly-bagged.
- B. Deliver the doors to the jobsite in Manufacturer's original unopened poly-bags.
- C. Deliver doors after the building is enclosed, dry, heated and adequately ventilated. Do not receive or store doors in damp areas. Do not drag the doors on the ground, floor or across one another.
- D. Store doors flat on a level surface, follow Manufacturer's printed instructions for storage and handling.

#### 1.6 ENVIRONMENTAL CONDITIONS

- A. Do not subject doors to extreme conditions or changes in heat, dryness or humidity in accordance with the latest edition of WDMA I.S. 1-A.

#### 1.7 GUARANTEE

- A. Provide Manufacturer's written guarantee against warpage, delamination and defects in materials and workmanship for the following time period:

Interior doors: Life of installation for solid core doors, interior use.

- B. Any defects noted during the warranty period shall be corrected at no cost to the building owner. Such corrective work shall include all labor and material for repair, replacement, refinishing and rehanging as required.

## PART 2, PRODUCTS

### 2.1 GENERAL

- A. All wood doors are to meet criteria for the latest edition of WDMA I.S. 1-A "Premium Grade".
- B. Glass mouldings in non-rated flush doors shall be similar to VT Industries' style VT1. Fire rated doors shall have VT steel vision frame style #110, beige prime finish, standard.

OPTIONS: Glass mouldings can be provided in a variety of wood species and profiles from non-rated to 90-minute, if specified.

- C. Doors shall be prefit and beveled at the factory to fit the openings. Prefit tolerances shall be in accordance with the requirements of WDMA I.S. 1-A, latest edition.
- D. Doors shall be machined in the factory for mortised hardware items, including pilot holes for hinge screws and lock fronts.
- E. Top and bottom rails shall be factory sealed with an approved wood sealer.
- F. Glass and glazing to be performed under Section 08800.
- G. Louvers provided and installed under Section 15800.

### 2.2 5-PLY FLUSH BONDED PARTICLE CORE DOORS, INTERIOR

- A. WDMA I.S. 1-A Quality Grade: Premium, Type PC-5ME.  
Seven-ply and non-bonded core constructions are not acceptable substitutions.
- B. Inner stiles to be 1-3/8" wide (before prefitting), structural composite lumber (SCL) with the outer stile to be the same species as the face veneer. The outer stile shall be applied after beveling and prior to face application. The door manufacturer shall drill 5/32" diameter pilot holes for all hinges.
- C. Rails are to be structural composite lumber (SCL), minimum 1-3/8" wide before prefitting.
- D. The core shall be particleboard, 28-32 pounds per cubic foot average density. Comply with particleboard standard ANSI A208.1, Grade 1-LD-2.
- E. Stiles and rails are to be securely GLUED to the core, and the entire assembly sanded flat as a unit to ensure minimal telegraphing of core components through face veneers.
- F. Composite crossbands shall be applied to core prior to application of matching hardwood stiles. Exposed crossbanding is not allowed along stile edges.
- G. Veneers are to be applied to the crossbanded core in a HOT PRESS using Type I exterior water-resistant adhesive. Five-ply construction.
- H. Face veneers are to be \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
(veneer species) (veneer cut) (veneer match)  
minimum thickness 1/42 inch before sanding.
- I. Doors to utilize SCS certified particle core to assist in achieving LEED credit for recycled content, or doors to utilize FSC certified stave core to assist in achieving LEED credit for certified wood, where required.

J. Manufacturers. Provide one of the following:

1. VT Industries Inc. 5502-2 (non-rated & 20-minute).

2. \_\_\_\_\_

3. \_\_\_\_\_

### 2.3 FLUSH FIRE RATED WOOD DOORS

A. WDMA I.S. 1-A Quality Grade: Premium, Type FD-5ME.

B. Outer stiles are to be the same species as the face veneer.

C. Inner stiles to be structural composite lumber (SCL) (45-minute), or G.P. Firestop™ I (60- & 90-minute) which can be warranted for use with standard weight mortise butt hinges and No. 12 – 1-1/4” steel threaded-to-head screws. The door manufacturer shall drill 5/32” diameter pilot holes for all hinges.

D. Rails are to be structural composite lumber (SCL) (45-minute), or G.P. Firestop™ (60- & 90-minute), manufacturer’s standard width.

E. Core is non-combustible mineral board, 30.8 - 34.7 lbs./ft<sup>3</sup>, containing no asbestos.

F. Composite crossbands shall be applied to core prior to application of matching hardwood stiles. Exposed crossbanding is not allowed along stile edges.

G. Face veneers are as described in previous Paragraph 2.2.

H. **Where UBC 7-2-1997/UL-10C requirements for positive pressure must be met, doors shall include all requirements as part of the door construction per Category A guidelines as published by Intertek/Warnock Hersey. No intumescent is allowed on the frame. Only smoke gasketing applied around the perimeter of the frame to meet the “S” rating is permissible.**

I. Manufacturers. Provide one of the following:

1. VT Industries Inc. 5545-2 (45-minute); and 5511-2 (60- & 90-minute) for negative pressure fire doors.  
5P45-2 (45-& 60-minute); and 5P11-2 (90-minute) for positive pressure fire doors.

2. \_\_\_\_\_

3. \_\_\_\_\_

### 2.4 LEAD LINED DOORS

A. WDMA I.S. 1-A Quality Grade: Premium.

B. Door thickness: Non-rated and 20-minute fire doors with a lead sheet on both sides of the core. Doors shall be 1-3/4” ± 1/16” with a maximum combined lead thickness of 1/4”.

C. Core: 28-32 lb./cu. ft. average density particleboard, grade 1-LD-2, for lead-each-side construction.

- D. Face veneers and vertical stile edges are to be compatible with non-rated and fire-rated doors.
- E. Composite crossbands shall be applied to core prior to application of matching hardwood stiles. Exposed crossbanding is not allowed along stile edges.
- F. Inner stiles to be 1-3/8" wide (before prefitting), structural composite lumber (SCL) with the outer stile to be the same species as the face veneer. The outer stile shall be applied prior to beveling doors.
- G. Rails are to be structural composite lumber (SCL): 1-3/8" wide (before prefitting) for lead-each-side construction.
- H. Lock and hinge stiles shall be beveled 1/8" in 2".
- I. Lead-lined steel lite frames shall be furnished for lite openings, with a maximum opening size of 256 square inches (not to exceed width or height of 16 inches) on 20-minute doors.
- J. Lead lining shall be of thickness and quality conforming to Shielding Study provided by Owner in compliance with governing codes. Integrity of lead lining shall be maintained.
- K. Manufacturers. Provide one of the following:
  - 1. VT Industries Inc. 5515-2 (non-rated & 20-minute).
  - 2. \_\_\_\_\_
  - 3. \_\_\_\_\_

2.5 SOUND RETARDANT DOORS

- A. WDMA I.S. 1-A Quality Grade: Premium.
- B. Testing Methods: ASTM E90-90 and E413-87. Testing conducted in a facility accredited by the U.S. Department of Commerce, National Institute of Standard and Technology (NIST).
- C. STC Rating Requirement for 1-3/4" thick doors: STC 39.
- D. Core: Sound absorbent material encapsulated by stiles, rails, crossbands, and face veneers.
- E. Maximum weight allowed for 3-0 x 7-0 is 125 pounds.
- F. Manufacturer to provide test results of STC ratings from an approved testing facility.
- G. Manufacturer to provide perimeter gasketing and drop seals necessary to achieve STC ratings.
- H. Face veneers and vertical stile edges are to be compatible with non-rated and fire rated doors.
- I. Using VT's #105 acoustical lite kit, STC 39 doors can maintain the full acoustical rating. The maximum lite size to fulfill these requirements is 216 square inches, or no greater than 6 inches wide by 36 inches long.
- J. Manufacturers. Provide one of the following:
  - VT Industries Inc. 5540-2.

2. \_\_\_\_\_

3. \_\_\_\_\_

## 2.6 FACTORY FINISHING

- A. WDMA TR-6, catalyzed polyurethane, premium grade.
- B. Stain color to be selected from the manufacturer's standard offering. Custom colors are available; a minimum 3"x5" physical sample is required for color matching.
- C. WDMA TR-6 is catalyzed polyurethane. There shall be a stain coat (omitted if clear finish is desired), three coats of sealer, followed by sanding with a 320 grit paper, followed by two topcoats. The polyurethane shall be cured to produce a finish per WDMA TR-6, sections G-15, G-16, and G-17.
- D. Top and bottom rails shall be factory sealed with an approved wood sealer.

## **PART 3, EXECUTION**

### 3.1 PREPARATION

- A. Carefully inspect the locations where the doors are to be installed. Notify the owner's representative of any conditions which would adversely affect the installation, or the subsequent operation of the door. Do not proceed until unsatisfactory conditions are corrected.
- B. Allow doors to become acclimated to building temperature and humidity before installation.
- C. Within four days of fitting each door, seal exposed surfaces with at least two coats of polyurethane.
- D. Use only skilled mechanics to install and adjust the finish hardware from Section 08700.
- E. After the doors have been adjusted and cleaned, place the poly bags over the doors to provide protection while the remainder of construction proceeds.