

Proposed Specification
Section 08213
HIGH PRESSURE DECORATIVE LAMINATE FACED WOOD DOORS (HPDL)

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 high pressure decorative laminate faced 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, high pressure decorative laminate selection, 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 doors provided shall conform with every aspect of this specification.
- E. Warranty statement shall accompany the submittal.
- F. Include documentation relating to environmental requirements, FSC certification/SCS approvals.

1.4 QUALITY ASSURANCE

- A. High pressure decorative laminate faced 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 prefittng dimensions as per the latest edition of WDMA I.S. 1-A.
- C. Each door shall bear an identifying label indicating the manufacturer, door number and order number, as well as fire rating where applicable.
- 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 rehangng 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. Laminate doors shall be faced with high pressure decorative laminates meeting the minimum requirements of NEMA LD3. Faces and vertical edges are to be a minimum thickness of nominal .050".
- C. Laminate selection shall be one of the standard products of Wilsonart[®], Formica[®], Nevamar[®], or approved equal. The laminate shall have manufacturer's standard finish, unless otherwise specified, for general grade use.
- D. Stile edges of doors shall have the laminate edges applied prior to the application of the face laminates.
- E. Top and bottom rails shall be factory-sealed with an approved wood sealer.
- F. 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.
- G. Doors shall be machined in the factory for mortised hardware items, including pilot holes for hinge screws and lock fronts.
- H. Glass and glazing provided under Section 08800.
- I. Louvers provided and installed under Section 15800.
- J. Vision panels shall be VT steel vision frame style #110, beige prime finish, standard.

2.2 FLUSH SOLID CORE HIGH PRESSURE DECORATIVE LAMINATE DOORS, INTERIOR

- A. WDMA I.S. 1-A Quality Grade: Premium, Type PC HPDL-3.
Non-bonded core constructions are not acceptable substitutions.
- B. Stiles to be 1-3/8" wide (before prefitting), structural composite lumber (SCL), edged with high pressure decorative laminate prior to face laminates. 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. Laminates are to be applied to the core in a HOT PRESS using Type I exterior water-resistant adhesive. Three-ply construction.
- F. 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.

H. Manufacturers. Provide one of the following:

1. VT Industries Inc. 303-3.
2. _____
3. _____

2.3 FLUSH FIRE RATED HIGH PRESSURE DECORATIVE LAMINATE DOORS

- A. WDMA I.S. 1-A Quality Grade: Premium, Type FD-HPDL-5.
- B. Stiles are to be structural composite lumber (SCL) with high pressure decorative laminate edges (45-minute), or G.P. Firestop™ I or II (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” pilot holes for all hinges.
- C. Rails are to be structural composite lumber (SCL) (45-minute), or G.P. Firestop™ (60- & 90-minute), manufacturer’s standard width.
- D. Core is non-combustible mineral board, 30.8 - 34.7 lbs./ft³, containing no asbestos.
- E. Composite crossbands shall be applied to core prior to application of high pressure decorative laminate edges. Exposed crossbanding is not allowed along stile edges.
- F. Face and edge laminates are as described in Paragraph 2.1.B & C of this section.
- G. **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.**
- H. Manufacturers. Provide one of the following:
 1. VT Industries Inc. 1345-3 (45-minute); 1111-3 (60- & 90-minute) for negative pressure fire doors.
1P45-3 (45- & 60-minute); 1P11-3 (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. Faces 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 high pressure decorative laminate edges. Exposed crossbanding is not allowed along stile edges.
- F. Stiles: 1-3/8" wide structural composite lumber (before prefitting), edged with high pressure decorative laminate prior to face laminates for lead-each-side construction.
- 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 light frames shall be furnished for light 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. 1515-3 (non-rated and 20-minute negative pressure); or
VT Industries Inc. 1P15-3 (20-minute positive pressure)
 - 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. High pressure decorative laminate faces are to be identical with non-rated and fire-rated doors, and vertical stile edges are to be painted or stained to complement faces.
- 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:
 - 1. VT Industries Inc. 1240-2 (stained stiles); or 1240-4 (painted stiles).
 - 2. _____

3. _____

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.