

## SECTION 08214

### HIGH-PRESSURE DECORATIVE LAMINATE FACED DOORS

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. *Interior High-Pressure Decorative Laminate Faced Doors:*
  - 1. *Flush solid-core high-pressure decorative laminate doors.*
  - 2. *Flush fire-rated high-pressure decorative laminate doors.*
  - 3. *Lead-lined doors.*
  - 4. *Sound-retardant doors.*

##### 1.2 RELATED SECTIONS

- A. *Section 06460 (06 48 00) – Wood Frames.*
- B. *Section 08100 (08 12 00) – Metal Frames.*
- C. *Section 08710 (08 71 00) – Door Hardware.*
- D. *Section 08800 (08 80 00) – Glazing.*
- E. *Section 10225 (08 91 26) – Door Louvers.*

##### 1.3 REFERENCES

- A. *ANSI A208.1 – Particleboard.*
- B. *ASTM E 90 – Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.*
- C. *ASTM E 413 – Classification for Rating Sound Insulation.*
- D. *AWI/AWMAC/WI Architectural Woodwork Standards, Section 9 – Doors.*
- E. *NEMA LD3 – High Pressure Decorative Laminates.*
- F. *NFPA 80 – Standard for Fire Doors and Other Opening Protectives.*
- G. *UBC 7-2-1997/UL 10C – Positive Pressure Fire Tests of Door Assemblies.*
- H. *WDMA I.S.1-A – Architectural Wood Flush Doors.*
- I. *WDMA I.S. 10 – Industry Standard for Testing Cellulosic Composite Materials for Use in Fenestration Products.*

#### **1.4 SUBMITTALS**

- A. *Comply with Section 01330 (01 33 00) – Submittal Procedures.*
- B. *Product Data: Submit manufacturer's product data, including door construction description and WDMA I.S.1-A and AWS classifications.*
- C. *Schedules: Submit manufacturer's schedules, including door dimensions, cutouts, high-pressure decorative laminate selection, and hardware. Reference individual door numbers as indicated on the Drawings.*
- D. *Samples:*
  - 1. *Submit manufacturer's door construction samples for door model specified.*
  - 2. *Submit manufacturer's sample chip with color and finish number.*
- E. *Test Reports: Submit manufacturer's test results of STC ratings from testing performed by independent testing agency for sound-retardant doors.*
- F. *Manufacturer's Certification: Submit manufacturer's certification that doors comply with specified requirements and are suitable for intended application.*
- G. *Cleaning Instructions: Submit manufacturer's cleaning instructions for doors.*
- H. *Warranty: Submit manufacturer's standard warranty.*

#### **1.5 QUALITY ASSURANCE**

- A. *Tolerances for Warp, Telegraphing, Squareness, and Prefitting Dimensions: WDMA I.S.1-A and AWS.*
- B. *Identifying Label: Each door shall bear identifying label indicating:*
  - 1. *Door manufacturer.*
  - 2. *Order number.*
  - 3. *Door number.*
  - 4. *Fire rating, if applicable.*
- C. *Fire-Rated Doors: Labeled by Intertek/Warnock Hersey.*
  - 1. *Construction Details and Hardware Application: Approved by labeling agency.*
- D. *Positive Pressure Opening Assemblies: UBC 7-2-1997/UL 10C.*

#### **1.6 DELIVERY, STORAGE AND HANDLING**

- A. *Delivery:*
  - 1. *Deliver doors to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.*
- B. *Storage:*
  - 1. *Store doors in accordance with manufacturer's instructions.*
  - 2. *Store doors in clean, dry area indoors, protected from damage and direct sunlight.*
  - 3. *Store doors flat on level surface.*
  - 4. *Do not store doors directly on concrete.*
  - 5. *Keep doors completely covered. Use covering which allows air circulation and does not permit light to penetrate.*

6. *Store doors between 50 and 90 degrees F (10 and 32 degrees C) and 25 to 55 percent relative humidity.*

C. *Handling:*

1. *Handle doors in accordance with manufacturer's instructions.*
2. *Protect doors and finish during handling and installation to prevent damage.*
3. *Handle doors with clean hands or clean gloves.*
4. *Lift and carry doors. Do not drag doors across other doors or surfaces.*

## **1.7 ENVIRONMENTAL REQUIREMENTS**

- A. *Do not subject doors to extreme conditions or changes in temperature or relative humidity in accordance with WDMA I.S.1-A.*

## **1.8 WARRANTY**

- A. *Warrant solid core, interior doors for life of installation against warpage, delamination, and defects in materials and workmanship.*
- B. *Defects noted during warranty period shall be corrected at no cost to Owner. Corrective work shall include labor and material for repair, replacement, refinishing, and rehangng as required.*

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURER**

- A. *VT Industries, Inc., 1000 Industrial Park, PO Box 490, Holstein, Iowa 51025. Toll Free (800) 827-1615. Phone (712) 368-4381. Fax (712) 368-4111. [www.vtindustries.com](http://www.vtindustries.com). [door\\_info@vtindustries.com](mailto:door_info@vtindustries.com).*
- B. *Eggers Industries, Neenah Division, 164 North Lake Street, Neenah, WI54956  
Phone: 920.722.6444, Fax: 920.722.0357*
- C. *Algoma Hardwoods, 1001 Perry St, Algoma, WI 54201, United States  
Phone: +1 920-487-5221*

### **2.2 GENERAL**

- A. *High-Pressure Decorative Laminates: NEMA LD3.*
1. *Face laminate doors with high-pressure decorative laminates.*
  2. *Nominal Minimum Thickness for Faces and Vertical Edges: 0.048 inch.*
  3. *Laminate Selection: Standard products of Formica, Nevamar, Pionite, Wilsonart, or equal.*
  4. *Finish: Manufacturer's standard.*
  5. *Grade: General purpose, horizontal grade.*
- B. *Vision Panels:*
1. *Steel vision frame.*
  2. *Style: No. 110.*
  3. *Finish: Beige finish.*
- C. *Glazing: As specified in Section 08800 (08 80 00).*
- D. *Door Louvers: As specified in Section 10225 (08 91 26).*

## **2.3 FLUSH SOLID-CORE HIGH-PRESSURE DECORATIVE LAMINATE DOORS**

### **A. Flush Solid-Core High-Pressure Decorative Laminate Doors:**

1. Type:
  - a. Particleboard core, non-rated or 20-minute rated (3-ply), positive pressure.
2. Compliance: WDMA I.S.1-A.
  - a. Aesthetic Grade: Premium.
  - b. Duty Level: Extra heavy duty.
  - c. Type: PC-HPDL-5 or PC-HPDL-3.
3. Seven-Ply and Non-Bonded Core Construction: Not acceptable.
4. Door Thickness: 1-3/4 inches.
5. Stiles:
  - a. 1-3/8 inches wide, before prefitting.
  - b. Structural composite lumber (SCL).
  - c. Edged with high-pressure decorative laminate before face laminates.
6. Rails:
  - a. Structural composite lumber (SCL).
  - b. Minimum Width Before Prefitting: 1-3/8 inches.
7. Core:
  - a. Material: [Particleboard]
8. Door Assembly:
  - a. Stiles and rails bonded to core.
  - b. Monolithically sand core assembly to ensure minimum telegraphing of core components.
9. Laminates:
  - a. Apply to core in hot press using Type I, exterior, water-resistant adhesive.
  - b. [3-ply] construction.
10. Positive Pressure:
  - a. Where UBC 7-2-1997/UL 10C standards for positive pressure apply, doors shall be constructed in accordance with Category A guidelines as published by Intertek/Warnock Hersey.
  - b. Smoke Gasketing: Apply smoke gasketing around frame perimeter and between door and pairs to meet Smoke (S) rating.
  - c. Intertek/Warnock Hersey Category A Guidelines: Edge sealing systems not allowed on frames.

## **2.4 FLUSH FIRE-RATED HIGH-PRESSURE DECORATIVE LAMINATE DOORS**

### **A. Flush Fire-Rated High-Pressure Decorative Laminate Doors:**

1. Type:
  - a. mineral core, 45-minute rated, positive pressure.
  - b. mineral core, 60- and 90-minute rated, positive pressure.
2. Compliance: WDMA I.S.1-A.

- a. *Quality Grade: Premium.*
  - b. *Duty Level: Extra heavy duty.*
3. *Door Thickness: 1-3/4 inches.*
4. *STC Rating:*
- a. *Mineral/Structural Composite Lumber Core: STC 33.*
5. *Stiles: [Structural composite lumber (SCL) with high-pressure decorative laminate edges, 45-minute rated] [Noncombustible material, 60- and 90-minute rated].*
6. *Rails:*
- a. *[Structural composite lumber (SCL), 45-minute rated] [Fire-retardant material, 60- and 90-minute rated].*
  - b. *Width: Manufacturer's standard width before prefitting.*
7. *Core:*
- a. *Fire-Retardant Mineral Core: Does not contain asbestos or added urea formaldehyde.*
8. *Composite Crossbands:*
- a. *Apply to core in hot press using Type I, exterior, water-resistant adhesive before application of hardwood edges.*
  - b. *Exposed Crossbanding: Not allowed along stile edges.*
9. *Positive Pressure:*
- a. *Where UBC 7-2-1997/UL 10C standards for positive pressure apply, doors shall be constructed in accordance with Category A guidelines as published by Intertek/Warnock Hersey.*
  - b. *Smoke Gasketing: Apply smoke gasketing around frame perimeter and between door and pairs to meet Smoke (S) rating.*
  - c. *Intertek/Warnock Hersey Category B Guidelines: Edge sealing systems not allowed on frames.*

## **2.5 LEAD-LINED DOORS**

### **A. Lead-Lined Doors:**

- 1. *Type:*
  - a. *particleboard core, non-rated.*
  - b. *particleboard core, 20-minute rated, positive pressure.*
- 2. *Compliance: WDMA I.S.1-A.*
  - a. *Quality Grade: Premium.*
  - b. *Duty Level: Extra heavy duty.*
- 3. *Non-Rated and 20-Minute-Rated Fire Doors With Lead Sheet on Both Sides of Core:*
  - a. *Door Thickness: 1-3/4 inches.*
  - b. *Maximum Combined Lead Thickness: 1/4 inch.*
- 4. *Core:*
  - a. *Particleboard.*
  - b. *Particleboard Grade: ANSI A208.1, Grade 1-LD-2, for lead-each-side construction.*
- 5. *Composite Crossbands:*

- a. *Apply to core before application of high-pressure decorative laminate edges.*
  - b. *Exposed Crossbanding: Not allowed along stile edges.*
- 6. *Stiles:*
    - a. *1-3/8 inches wide, before prefitting.*
    - b. *Structural composite lumber (SCL).*
    - c. *Edged with high-pressure decorative laminate before face laminates for lead-each-side construction.*
  - 7. *Rails:*
    - a. *Structural composite lumber (SCL).*
    - b. *Width: 3-3/8 inches, before prefitting for lead-each-side construction.*
  - 8. *Lead-Lined Steel Lite Frames on 20-Minute Doors:*
    - a. *Maximum Lite Opening Size: 256 square inches.*
    - b. *Maximum Width and Height: 16 inches.*
  - 9. *Lead Lining:*
    - a. *Thickness and Quality: Conform to shielding study provided by Owner.*
    - b. *Maintain integrity of lead lining.*

## **2.6 SOUND-RETARDANT DOORS**

### **A. Sound-Retardant Doors:**

- 1. *Type:*
  - a. *composite sound core, stained stiles.*
- 2. *Compliance: WDMA I.S.1-A.*
  - a. *Quality Grade: Premium.*
- 3. *Testing Methods: ASTM E 90 and E 413.*
- 4. *Door Thickness: 1-3/4 inches.*
- 5. *STC Rating: [33], [35], [45]*
- 6. *Core: Sound absorbent material encapsulated by stiles, rails, crossbands, and face laminates.*
- 7. *Perimeter Gasketing and Drop Seals: To achieve STC ratings.*
- 8. *High-Pressure Decorative Laminate Faces: Identical with non-rated and fire-rated doors.*
- 9. *Vertical Stile Edges: Matching.*
- 11. *Acoustical Lite Kit: Model 105.*

## **2.7 FABRICATION**

### **A. Stile Edges: Apply laminate edges before application of face laminates.**

### **B. Prefit Doors:**

- 1. *Prefit and bevel doors at factory to fit openings.*
- 2. *Prefit Tolerances: WDMA I.S.1-A.*

- C. *Factory-machine doors for mortised hardware, including pilot holes for hinge screws and lock fronts required.*
- D. *Top and Bottom Rails: Factory sealed.*

### **PART 3 EXECUTION**

#### **3.1 EXAMINATION**

- A. *Examine locations to receive doors. Notify Architect of conditions that would adversely affect installation or subsequent use. Do not begin installation until unacceptable conditions are corrected.*
- B. *Ensure frames are solidly anchored, allowing no deflection when doors are installed.*
- C. *Ensure frames are plumb, level, square, and within tolerance.*

#### **3.2 PREPARATION**

- A. *Allow doors to become acclimated to building temperature and relative humidity for a minimum of 24 hours before installation.*

#### **3.3 INSTALLATION**

- A. *Install doors in accordance with manufacturer's instructions.*
- B. *Install doors at locations indicated on the [Door Schedule] [Drawings].*
- C. *Install doors plumb, level, and square.*
- D. *Install door hardware as specified in Section 08710 (08 71 00).*

#### **3.4 ADJUSTING**

- A. *Adjust doors to swing freely, without binding in frame.*
- B. *Adjust hardware to operate properly.*
- C. *Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.*
- D. *Remove and replace damaged doors that cannot be successfully repaired, as determined by Architect.*

#### **3.5 CLEANING**

- A. *Clean doors promptly after installation in accordance with manufacturer's instructions.*
- B. *Do not use harsh cleaning materials or methods that could damage finish.*

#### **3.6 PROTECTION**

- A. *Protect installed doors from damage during construction.*

**END OF SECTION**

*For LEED requirements, please add the following section to article 1.5:*

- G. Environmental Documentation: Submit manufacturer's environmental documentation for the following LEED credits.*
  - 1. MR Credit 4: Recycled Content.*
  - 2. MR Credit 5: Regional Materials.*
  - 3. MR Credit 6: Rapidly Renewable Materials.*
  - 4. MR Credit 7: Certified Wood.*
  - 5. EQ Credit 4.4: Low-Emitting Materials - Composite Wood and Agrifiber Products.*