

# **PBS Supply & Claridge Products Specification**

## **DIVISION 10 – SECTION 10 11 00 – VISUAL DISPLAY SURFACES**

### **PART 1 – GENERAL**

#### **1.01 DESCRIPTION OF WORK**

- A. Section Includes:
  - 1. Porcelain Enamel Steel Markerboards and Chalkboards
  - 2. Tackboards
  - 3. Vertical and Horizontal Sliding Units
  - 4. Field-Applied Trim
- B. Related Sections Include:
  - 1. Glass Enclosed Directory and Bulletin Board Cabinets
  - 2. Display Cases and Specialty Casework

#### **1.02 REFERENCED STANDARDS**

- A. American Society for Testing Materials
  - 1. ASTM E84 Standard Test Method for Surface Burning Characteristics for Building Materials
  - 2. ASTM B221 Standard Specification for Aluminum and Aluminum Alloy Extruded Bars, Rods, Wires, Profiles and Tubes
- B. Porcelain Enamel Institute
  - 1. PEI-1002 Manual and Performance Specifications for Porcelain Enamel Writing Surfaces
- C. GREENGUARD Certification from UL Environment
  - 1. Meets GREENGUARD Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

#### **1.03 SUBMITTALS**

- A. Shop Drawings: Provide shop drawings for each type of visual display board required.
- B. Product Data: Provide technical data for materials specified. Include Material Safety Data Sheets, when applicable.
- C. Samples and color charts: Provide Manufacturer's color charts and composition samples of face, core, backing and trim to illustrate finish, color and texture, where required.
- D. Manufacturer's Instructions: Provide Manufacturer's installation instructions.

#### **1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications:
  - 1. Manufacturer shall be a firm engaged in the manufacture of visual display boards in the United States.
  - 2. Manufacturer shall have a minimum of 5 years experience in the manufacture of visual display boards.
- B. Regulatory Requirements: Conforms to applicable code for flame/smoke rating in tackboards in accordance with ASTM E84.
- C. Product Certifications: Provide GREENGUARD Gold certificate for markerboards, as applicable.
- D. Operation and Maintenance: Include data on regular cleaning, stain removal, and precautions.

### **1.05 PROJECT CONDITIONS**

- A. Field measure prior to preparation of shop drawings and fabrication to ensure proper fit.
- B. Comply with manufacturer's recommendations for acclimating area for interior moisture and temperature to approximate normal occupied conditions.

### **1.06 DELIVERY, STORAGE AND HANDLING**

- A. Schedule delivery of visual display boards with spaces sufficiently complete so that visual display boards can be installed upon delivery.
- B. Store products in manufacturer's unopened packaging until ready for installation.
- C. Store materials protected from exposure to harmful weather conditions and at temperatures and humidity conditions recommended by manufacturer.

### **1.07 WARRANTY**

- A. Submit a "Life of the Building" warranty, stating that under normal usage and maintenance, and when installed in accordance with manufacturer's instructions and recommendations, Claridge porcelain enamel steel markerboard and chalkboard writing surfaces are guaranteed for the Life of the Building. Guarantee covers replacement of defective boards but does not include cost of removal or reinstallation.
- B. Submit a standard warranty, stating that when installed in accordance with manufacturer's instructions and recommendations, Claridge tackboards are guaranteed for one year against defects in materials and workmanship. Guarantee does not cover normal wear and tear, improper handling, any misuse, or any defects caused by vandalism or subsequent abuse. Guarantee covers replacement of defective material but does not include cost of removal or reinstallation.
- C. Writing Surface Warranty Period: (Specify term) \_\_\_\_ years commencing on Date of Substantial Completion.

## **PART 2 – PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Visual Display Board Manufacturer: Claridge Products and Equipment, Inc., Harrison, Arkansas
- B. Sales & Distribution: PBS Supply Co., [www.pbssupply.com](http://www.pbssupply.com), [info@pbssupply.com](mailto:info@pbssupply.com)

### **2.02 MATERIALS FOR MARKERBOARD AND CHALKBOARD PANELS**

- A. Writing Surface Face Sheet – Manufactured in accordance with Porcelain Enamel Institute's specification.
  - 1. Shall be enameling grade cold rolled steel manufactured from a minimum of 30 percent post-consumer and post-industrial waste.
  - 2. Enameling grade steel shall be coated with LCS<sup>3</sup> Porcelain Enamel by Claridge Products and Equipment.
    - a. 3-Coat process shall include:
      - i. Bottom Ground Coat – 1.5 to 2.2 mils
      - ii. Top Ground Coat – 2.0 to 2.8 mils
      - iii. Top Cover (Color) Coat – 3.0 to 4.0 mils

3. Firing Temperature: Enamel shall be fired at lowest possible temperatures to reduce steel and porcelain stresses and achieve superior enamel and hardness.
4. Color: As selected by architect from manufacturer's standards. Color charts furnished on request. NOTE: LCS<sup>3</sup> No. 100 White can be used as a projection surface.
- B. Writing Surface Core
  1. 7/16" Particleboard
- C. Writing Surface Backing
  1. Moisture Barrier Back
  2. Foil Back
  3. Aluminum Sheet Back
  4. Steel Back
- D. Factory Framed Markerboards and Chalkboards
  1. Face Sheet: (Specify LCS<sup>3</sup> porcelain enamel steel Markerboard; or porcelain enamel steel Chalkboard)
  2. Core Material: (Specify 7/16" Particleboard)
  3. Backing: (Specify Moisture Barrier Back; Foil Back; Aluminum Sheet Back; or Steel Back)
  4. Series: (Specify Series 1, 3, 4, 5, 8, or 185)
  5. Typical Arrangement: (Specify Type A for Markerboard or Chalkboard; or Type C, D, F, H, BR, BL, ER, EL, GR or GL for Combination Markerboard/Tackboard or Chalkboard/Tackboard)
  6. Panel Size: (Specify writing surface panel length and height, and, for combination units, tackboard panel length and height.)
  7. Color: (Specify color(s) from manufacturer's standard colors.) Color charts furnished on request.

### **2.03 MATERIALS FOR TACKBOARD PANELS**

- A. Claridge Cork: Composed of 1/4" thick self-healing, burlap backed cork laminated to a 1/4" hardboard backing
- B. Fabricork: Vinyl fabric on cork underlay with 1/4" hardboard backing
- C. Designer Fabric: Polyester Fabric on cork underlay with 1/4" hardboard back
- D. Hook-Fab: Hook and loop compatible fabric on cork underlay with 1/4" hardboard back
- E. Tan Nucork: Pure grain natural cork (without burlap backing) on 1/4" hardboard back
- F. Colors: Select from manufacturers' standard colors.
- G. Thickness: Total laminated thickness of core and covering is 1/2". All thicknesses are nominal.
- H. Factory Framed Tackboards
  1. Tack Surface: (Specify Claridge Cork, Fabricork, Designer Fabric; Hook-Fab; or Tan Nucork)
  2. Series: (Specify Series 1, 3, 4, 5, 8, or 185)
  3. Typical Arrangement: (Specify Type CO for Tackboard; or Type C, D, F, H, BR, BL, ER, EL, GR or GL for Combination Markerboard/Tackboard or Chalkboard/Tackboard)
  4. Panel Size: (Specify tack surface panel length and height, and, for combination units, writing surface panel length and height)
  5. Panel Color: (Specify color(s) from manufacturer's standard colors.) Color charts furnished on request.

### **2.04 ALUMINUM TRIM**

- A. Trim shall be 6063 alloy grade aluminum with T5 tempering in accordance with ASTM B221, and shall have 201-R1 satin anodize finish. (Color Anodize and Powder Coat finishes optional)

1. Factory Built Trim
    - a. Series: (Specify Series 1, 3, 4, 5, 8, or 185)
  2. Field-Applied Trim:
    - a. Screw-On Aluminum Trim
    - b. Slip-On Aluminum Trim
    - c. Snap-On Aluminum Trim
    - d. Length: (Specify length)
    - e. Finish: (Specify finish )
- B. Accessories:
1. Marker Tray/Chalktrough
    - a. Standard continuous, solid, blade-type aluminum tray with ribbed section and injection molded end closures at bottom of each markerboard or chalkboard
    - b. Standard continuous, hollow, box-type aluminum tray with injection molded end closures at bottom of each markerboard or chalkboard
    - c. Optional continuous, hollow aluminum tray with cast aluminum end closures at bottom of each markerboard or chalkboard
  2. Map Rail
    - a. Standard continuous 1" map rail with cork insert and end stops at the top of each markerboard and chalkboard
    - b. Optional continuous 2" map rail with cork insert and end stops at the top of each markerboard and chalkboard
      - i. Map Hooks: (Two map hooks furnished for map rail on factory-framed units)
      - ii. Roller Brackets: (Specify number required)
      - iii. Flag Holders: (Specify number required)

## 2.05 SLIDING UNITS

- A. Horizontal Sliding Markerboard, Chalkboard and Tackboard Units
1. Series: (Specify series from manufacturer's standard units – two-track; three-track; four-track; or component parts)
    - a. Sliding Panels and/or Back Panel – Writing surface: (Specify LCS<sup>3</sup> porcelain enamel steel Markerboard or porcelain enamel steel Chalkboard)
    - b. Sliding Panels and/or Back Panel – Tackable surface: (Specify Claridge Cork; Fabricork; Designer Fabric; Hook-Fab; or Tan Nucork)
  2. Sizes: (Specify panel length and height. Standard height – 4-feet. Standard length – up to 24-feet)
  3. Typical Arrangements: (Specify type and color of back panel, if required, and number, type and color of sliding panels. Select from manufacturer's standards.)
  4. Component Parts: (Specify top mounted panels without housing; or bottom mounted panels without housing)
- B. Vertical Sliding Markerboard, Chalkboard and Tackboard units
1. Series: (Specify series from manufacturer's standard units – manually or motor operated, Wall or Floor Mounted Regular Vertical Sliding Units; Wall or Floor Mounted Thinline Vertical Sliding Units) Note: Thinline units not recommended for heavy, every day use.
    - a. Sliding Panels and/or Back Panel – Writing surface: (Specify LCS<sup>3</sup> porcelain enamel steel Markerboard or porcelain enamel steel Chalkboard)

- b. Sliding Panels and/or Back Panel – Tackable surface: (Specify Claridge Cork; Fabricork; Designer Fabric; Hook-Fab; or Tan Nucork)
  - c. Wall Mounted Units: Panels slide from sill or accessory tray to top of unit.
  - d. Floor Mounted Units: Panels slide from floor to top of unit. (Optional kick panel allows sliding panels to be concealed when in down position, leaving entire rear wall surface as writing or tackable surface.)
- 2. Sizes: (Specify panel length and height. Standard height is 8-feet for wall mounted verticals and 10-feet for floor mounted verticals. Standard length of Regular verticals is up to 16-feet; standard length of Thinline verticals is up to 12-feet)
- 3. Sliding Panel(s) and Housing: (Specify number of sliding panels required, one, two, or three)
  - a. Regular Vertical Sliding Panels are 7/8" thick
  - b. Regular Housing has 4" wide face
    - i. Housing for Regular Verticals with one sliding panel is approximately 3-5/16" deep
    - ii. Housing for Regular Verticals with two sliding panels is approximately 6-1/2" deep
    - iii. Housing for Regular Verticals with three sliding panels is approximately 9-9/16" deep
  - c. Thinline Vertical Sliding Panels are 1/2" thick
  - d. Thinline Vertical Housing has a 2-5/8" wide face
    - i. Housing for Thinline Verticals with one sliding panel is approximately 2-23/32" deep
    - ii. Housing for Thinline Verticals with two sliding panels is approximately 4-7/8" deep
    - iii. Housing for Thinline Verticals with three sliding panels is approximately 7" deep
- 4. Typical Arrangements: (Specify type and color of back panel, if required and number, type and color of sliding panels. Select from manufacturer's standards.)

## 2.06 FABRICATION

- A. Shop assembly: (Specify factory assembled or field assembled markerboard, chalkboard, and tackboard units.)
- B. Shop assembly: Provide Horizontal Sliding Units with all corners reinforced with angles to strengthen frame. Nylon ball bearing rollers at top of unit and nylon guide rollers at bottom of unit to be of sufficient size and number to eliminate vibration and provide smooth and quiet operation of the panels.
  - 1. LCS<sup>3</sup> Porcelain Enamel Steel Markerboard or Porcelain Enamel Steel Chalkboard:
    - a. Sliding Panels:
      - i. Face Sheet: LCS<sup>3</sup> porcelain enamel steel Markerboard or porcelain enamel steel Chalkboard
      - ii. Core: 1/2" honeycomb
      - iii. Backing: Steel
    - b. Back Panels:
      - i. Face Sheet: LCS<sup>3</sup> porcelain enamel steel Markerboard or porcelain enamel steel Chalkboard
      - ii. Core: 7/16" Particleboard
      - iii. Backing: Moisture Barrier Back

2. Claridge Cork Tackboard Sliding Panel or Back Panel:
  - a. Face Sheet: ¼" Cork
  - b. Binder: Burlap
  - c. Backing: Hardboard
- C. Shop assembly: Provide Regular Vertical Sliding Units with all corners reinforced with angles to strengthen unit and eliminate vibration. Panels to be equipped with ball bearing rollers for elimination of side motion and noise plus, ball bearing neoprene end rollers for effortless movement of panels. Sliding panels to be counterbalanced and all cables rotate around one central pulley to eliminate racking. Vertical sliding units to be completely assembled at the factory and erected on a test panel before shipping. All sections to be properly fitted and all units to be thoroughly tested, then, taken apart for shipping. Components are to be clearly marked for easy reassembly on the job.
  1. LCS<sup>3</sup> Porcelain Enamel Steel Markerboard or Porcelain Enamel Steel Chalkboard:
    - a. Sliding Panels:
      - i. Face Sheet: LCS<sup>3</sup> porcelain enamel steel Markerboard or porcelain enamel steel Chalkboard
      - ii. Core: ¾" honeycomb
      - iii. Backing: Steel
    - b. Back Panel:
      - i. Face sheet: LCS<sup>3</sup> porcelain enamel steel Markerboard or porcelain enamel steel Chalkboard
      - ii. Core: 7/16" Particleboard
      - iii. Backing: Moisture Barrier Back
  2. Claridge Cork Tackboard Sliding Panels:
    - a. Sliding Panels:
      - i. Face Sheet: ¼" cork
      - ii. Binder: Burlap
      - iii. Backing: Honeycomb and Steel
  3. Claridge Cork Back Panel:
    - a. Back Panels:
      - i. Face Sheet: ¼" cork
      - ii. Binder: Burlap
      - iii. Backing: Hardboard
- CI. Shop assembly: Provide Thinline Vertical Sliding Units with all corners reinforced with angles to strengthen unit and eliminate vibration. Panels to be equipped with nylon guides for effortless panel movement. Sliding panels to be counterbalanced and all cables rotate around one central pulley to eliminate racking. Thinline Vertical Sliding Units to be completely assembled at the factory and erected on a test panel before shipping.
  1. LCS<sup>3</sup> Porcelain Enamel Steel Markerboard or Porcelain Enamel Steel Chalkboard:
    - a. Sliding Panels:
      - i. Face Sheet: LCS<sup>3</sup> porcelain enamel steel Markerboard or porcelain enamel steel Chalkboard
      - ii. Core: 1/2" honeycomb
      - iii. Backing: Steel
    - b. Back Panel:
      1. Face sheet: LCS<sup>3</sup> porcelain enamel steel Markerboard or porcelain enamel steel Chalkboard
      2. Core: 7/16" Particleboard

3. Backing: Moisture Barrier Back
2. Claridge Cork Tackboard Sliding Panels or Back Panel:
  - a. Face Sheet: ¼" cork
  - b. Binder: Burlap
  - c. Backing: Hardboard

## **PART 3 – EXECUTION**

### **3.01 PROJECT CONDITIONS**

- A. Verify before installation that interior moisture and temperature approximate normal occupied conditions.
- B. Verify that wall surfaces are true and plumb and are prepared and ready to receive boards.

### **3.02 INSTALLATION**

- A. Deliver factory built units completely assembled and of dimensions shown in details and in accordance with manufacturer's shop drawings as approved by the architect.
- B. Follow manufacturer's instructions for storage and handling of units before installation.
- C. Do not install boards on damp walls or in damp and humid weather without heat in the building.
- D. Install level and plumb, keeping perimeter trim straight in accordance with manufacturer's recommendations.

### **3.03 ADJUST AND CLEAN**

- A. Verify that all accessories are installed as required for each unit.
- B. At completion of work, clean surfaces and trim in accordance with manufacturer's recommendations, leaving all materials ready for use.