

SECTION 07420 PHENOLIC WALL PANELS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Exterior solid phenolic cladding panel system and accessories as required for a complete drained and back-ventilated rainscreen system.
 - 1. Wall panels.
 - 2. Fascia.
 - 3. Horizontal soffits.
 - 4. Storefront panels.

1.2 RELATED SECTIONS

- A. Section 05500 – Metal Fabrications; additional sub framing, Z girls to accommodate exterior insulation is not in the scope of Section 07420.
- B. Section 07200 – Insulation; exterior insulation is not included in the scope of Section 07420.
- C. Section 08400 - Entrances and Storefronts.
- D. Section 08910 - Glazed Curtain Walls.
- E. Section 09250 – Gypsum Board.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.

- C. Shop Drawings: Submit plan, section, elevation and perspective drawings necessary to describe and convey the layout, profiles and product components, including edge conditions, panel joints, fixture location, anchorage, accessories, finish colors, patterns and textures.
- D. Code Compliance: Documents showing product compliance with local building code shall be submitted prior to the bid. These documents shall include, but not be limited to, appropriate Evaluation Reports and/or test reports supporting the use of the product. Alternate materials must be approved by the architect of record prior to the bid date.
- E. Engineering Calculations: Submit engineering calculations as required by the local building code, showing that the installed panels and attachments system meets the wind load requirements for the project.
- F. Verification Samples: For each finish product specified, two samples a minimum of 2 inches by 2 inches representing actual product and color. Sample edges may vary from field panel edges.
- G. Operation and Maintenance Data: Submit operation, maintenance, and cleaning information for products covered under this section.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All primary panel products specified must be manufactured in the United States of America. Manufacturer must have produced product for minimum 25 years.
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer trained and approved by the manufacture or representative.
- C. Manufacturer's Field Services: Upon Owner's request, provide manufacturer's field service consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.

- D. Mock-Up: Provide a mock-up for evaluation of the product and application workmanship.
 - 1. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
- E. Pre-installation Meetings: Conduct pre-installation conference to verify project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery:
 - 1. During transportation, use stable, flat pallets that are at least the same dimension as the sheets.
 - 2. Materials shall be packaged to minimize or eliminate the possibility of damage during shipping. Items such as wooden side boards, wooden lid, and spacers or protective sheeting between panels shall be used to protect the panels from surface and/or edge damage.
- B. Storage:
 - 1. Store products in an enclosed area protected from direct sunlight, moisture and heat. Maintain a consistent temperature and humidity.
 - 2. Store products in manufacturer's unopened packaging until ready for installation.
 - 3. Stack panels using protective dividers to avoid damage to surface.
 - 4. For horizontal storage, store sheets on pallets of equal or greater size as the sheets with a protective layer between the pallet and sheet and on top of the uppermost sheet.
 - 5. Do not store sheets, or fabricated panels vertically.
- C. Handling:
 - 1. When moving sheets, lift evenly to avoid dragging panels across each other and scratching the decorative surface.

1.6 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Field Measurements: Verify actual measurements/openings by field measurements performed by the installer prior to release for fabrication. Recorded measurements to be indicated on shop drawings based on field measurements provided by the installer. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

1.7 WARRANTY

- A. Warranty: At project closeout, provide manufacturer's limited ten year warranty covering defects in materials. Warranty only available when material installed by an installation contractor trained and approved by the manufacturer's representative.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Richlite Company; 625 E. 15th Street, Tacoma, Washington, 98421. U.S.A. email: info@richlite.com. Phone: 888-383-5533. Fax: 253 383 5536. Web: www.richlite.com
- B. Substitutions: Not permitted.

2.2 WALL PANELS

- A. Solid Phenolic Wall Panels: Richlite Company
 - 1. Material: Solid panel manufactured using a combination of high pressure and temperature to create a flat panel created from thermosetting resins, homogenously reinforced with 100% FSC Certified wood-based fibers.
 - 2. Color: Slate. Panel core color consistent with face color.
 - 3. Panel Thickness: 5/16 inch (8 mm).
 - 4. Physical Properties:



- 5. Fire Performance:
 - a. Flame Spread: Class A, UL 723.
 - b. Smoke Development - 40, Flame Spread - 35
 - c. Ignition Temperature: Greater than 650 degree F (350 degree C) above ambient, ASTM D1929.
- 6. Finish Performance: Factory mill finish with no sealer applied to face or edges.
- B. Mounting System:
 - 1. Exposed fastening on fixed depth aluminum sub-framing.
 - 2. Other installation systems - Include test documentation showing compliance with the performance criteria set forth in the specification and in accordance with the local building code.
- C. Aluminum Sub Structure: Aluminum sub-structure designed to withstand structural loading due to wind load and the dead load of the panel, painted as required to conceal behind the open joinery of the attachment system.
 - 1. Extrusions, including corner closures, joint closures and vent screens, formed members, sheet, and plate shall conform with the recommendations of the manufacturer.
- D. Extruded Aluminum Trim: Color as specified in the finish schedule.
- E. Fasteners: Fasteners shall be non-corrosive and as recommended by panel manufacturer. Exposed fasteners shall be colored to match panels where required by the architect.

2.3 FABRICATION

- A. Panels: Solid phenolic impregnated kraft paper wall panels with no voids, air spaces or foamed insulation in the core material. Accessory items in accordance with manufacturer's recommendations and approved submittals
- B. Panel Weight:
- C. Panel Bow:
- D. Panel Dimensions:
- E. Appearance: Panel lines, breaks, and angles shall be sharp, true, and surfaces free from warp and buckle

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Surfaces to receive panels shall be even, smooth, dry, and free from defects detrimental to the installation of the panel system. Notify Contractor in writing of conditions detrimental to proper and timely completion of the work.
- C. Confirm exterior sheathing is plumb and level, with no deflection greater than
- D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding. Do not proceed with installation until unsatisfactory conditions have been corrected.
- E. If air barrier/water resistive barrier is the responsibility of another installer, ensure that air barrier installation is seamless and continuous and free from penetrations, pinholes, “fish mouths” and that all joints and terminations have been sealed per the air barrier manufacturers recommendations. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install solid phenolic wall panels and sub-frame system in accordance with manufacturer’s instructions.
- B. Install solid phenolic wall panels plumb and level and accurately spaced in accordance with manufacturer’s recommendations and approved submittals and drawings.
- C. Anchor panels and sub-framing securely per engineering recommendations and in accordance with approved shop drawings to allow for necessary movement and structural support.

- D. Fasten solid phenolic wall panels with fasteners approved for use with supporting substrate.
- E. Do not install panels or component parts which are observed to be defective or damaged including, but not limited to: warped, bowed, abraded, scratched, and broken members.
- F. Do not cut or trim component parts during installation in a manner that would damage the finish, decrease the strength, or result in visual imperfection or a failure in performance. Return component parts with require alteration to the shop for re-fabrication or replacement.
- G. Install corner profiles and trim with fasteners appropriate for use with adjoining construction as indicated on the Contract Drawings and as recommended by manufacturer.

3.4 ADJUSTING AND CLEANING

- A. Adjust final panel installation so that all joints are true and even throughout the installation. Panels out of plane shall be adjusted with the surrounding panels to minimize any imperfection.
- B. Repair panels with minor damage. Remove and replace panels damaged beyond repair as a direct result of the panel installation. After installation, panel repair and replacement shall become the responsibility of the General Contractor.
- C. Clean finished surfaces as recommended by panel manufacturer. After installation cleaning, and cleaning during construction shall become the responsibility of the General Contractor.

END OF SECTION