SECTION 07420

(SOLID PHENOLIC EXTERIOR WALL PANEL SYSTEM)

1. GENERAL
   1. SUMMARY
      1. Section Includes: Solid phenolic single-skin panels for:
         1. [Curtain wall panel] [Storefront panel] [Wall cladding system] [Soffit panel] [Fascias] [Insert panel application(s).] application.

Specifier Note: Revise paragraph below to suit project requirements. Add section numbers and titles per CSI *MasterFormat* and specifier’s practice.

* + 1. Related Sections: Section(s) related to this section include:
       1. Rough Carpentry: Division 6 Rough Carpentry Section.
       2. Aluminum Subframing: Division 6 Metal Fabrications Section.
       3. Storefront Framing: Division 8 Aluminum Entrance and Storefront System Section.
       4. Curtain Wall Framing: Division 8 Aluminum Curtain Wall Framing System.
  1. REFERENCES
     1. ASTM International:
        1. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials.
     2. European National Standards (EN):
        1. EN 438-2 Decorative High-Pressure Laminates (HPL) Sheets Based on Thermosetting Resins. Determination of Properties.
     3. Deutches Institut fur Normung e. V. (German Standards Institute) (DIN).
  2. SYSTEM DESCRIPTION
     1. Performance Requirements: Provide exterior phenolic planks and fasteners that have been manufactured, fabricated and installed to maintain performance criteria stated by manufacturer without defects, damage or failure.

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this Article with Architect’s and Contractor’s duties and responsibilities in Conditions of the Contract and Division 1 Submittal Procedures Section.

* 1. SUBMITTALS
     1. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
     2. Product Data: Submit product data, including manufacturer’s SPEC-DATA® product sheet, for specified products.
     3. Shop Drawings: Submit shop drawings showing layout, profiles and product components, including edge conditions, panel joints, fixture location, anchorage, accessories, finish colors, patterns and textures.
     4. Samples: Submit selection and verification samples for finishes, colors and textures.
     5. Quality Assurance Submittals: Submit the following:
        1. Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties.
        2. Manufacturer’s Instructions: Manufacturer’s installation instructions.
        3. Manufacturer’s Field Reports: Manufacturer’s field reports specified herein.
     6. Closeout Submittals: Submit the following:
        1. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance.
        2. Warranty: Warranty documents specified herein.
  2. QUALITY ASSURANCE
     1. Qualifications:
        1. Manufacturer Qualifications: Manufacturer is capable of providing field service representation during fabrication and approving application method.
           1. Obtain from a single manufacturer.
        2. Fabricator/Installer Qualifications: Installer shall be approved by the manufacturer and experienced in performing work of similar type and scope.
     2. Mock-Ups: Install at project site a job mock-up using acceptable products and manufacturer approved installation methods. Obtain Owner’s and Architect’s acceptance of finish color, texture, pattern and workmanship standards. Comply with Division 1 Quality Control (Mock-Up Requirements) Section.

Specifier Note: Edit paragraph below to specify mock-up size.

* + - 1. Mock-Up Size: [Specify mock-up size.].
      2. Maintenance: Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.
      3. Incorporation: Mock-up may be incorporated into final construction upon Owner’s approval.
    1. Preinstallation Meetings: Conduct preinstallation meeting to verify project requirements, substrate conditions, manufacturer’s installation instructions and manufacturer’s warranty requirements. Comply with Division 1 Project Management and Coordination (Project Meetings) Section.

Specifier Note: Article below should include special and unique requirements.

* 1. DELIVERY, STORAGE & HANDLING
     1. General: Comply with Division 1 Product Requirements Sections.
     2. Ordering: Comply with manufacturer’s ordering instructions and lead time requirements to avoid construction delays.
     3. Delivery: Deliver materials in manufacturer’s original, unopened, undamaged containers with identification labels intact.
     4. Storage and Protection: Store materials protected from exposure to harmful weather conditions, at temperature and humidity conditions recommended by manufacturer.
  2. PROJECT CONDITIONS
     1. Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

Specifier Note: Coordinate Article below with Conditions of the Contract and with Division 1 Closeout Submittals (Warranty) Section.

* 1. WARRANTY
     1. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.

Specifier Note: American Architectural Products Group offers a limited warranty for a ten year period against color loss and loss of specified physical and mechanical properties of phenolic when the product is fabricated and installed in accordance with manufacturer’s requirements. Contact American Architectural Products Group for details of standard and project-specific warranties.

* + 1. Manufacturer’s Warranty: Submit, for Owner’s acceptance, manufacturer’s standard warranty document executed by authorized company official. Manufacturer’s warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

1. PRODUCTS
   1. SOLID PHENOLIC PLANK SYSTEM
      1. Manufacturer: EPLS by AMERICAN ARCHITECTURAL PRODUCTS GROUP (AAPG) , 248 James Street, Venice, FL 34285.
         1. Contact: American Architectural Products Group, 248 James Street, Venice, FL 34285; Telephone: 844-307-9571, E-mail: pwest@millworkusa.com.
      2. Proprietary Product(s):
         1. Exterior Compact EPLS
            1. Material: Solid phenolic panel.
            2. Colors: [Submit manufacturer’s standard species for selection by Architect.] [Specify standard color(s) and order number(s).].

Panels shall be [Color 1 side] [Color 2 side] [Color both sides

* + - * 1. Finish: Matte
        2. Panel Core: Type FR fire retardant brown core.

Specifier Note: Specify panel size providing joint layout indicated.

* + - * 1. Panel Standard Sizes: [96 inches × 6 inches (2440× 152 mm)].
        2. Panel Thickness: [5/16 inch (8 mm)] [
        3. Modulus of Elasticity (DIN 53457): 1,200,000 psi (8000 N/mm2), minimum.
        4. Tensile Strength (DIN 53455): 13,000 psi (90 N/mm2).
        5. Flexural Strength (DIN 53452): 16,000 psi (110 N/mm2), minimum.
        6. Surface Impact Resistance (EN 438-2 (11)): 9 lbf (40 N) index, minimum.
        7. Scratch Resistance (EN 438-2 (14)): 0.79 lbf (3.5 N) index, minimum.
        8. Fire Performance (ASTM E84 [(Type I, Class A)]):
        9. Water Absorption (EN 438-2 (7)): Less than 1.0%.
        10. Porosity: Nonporous surface and edges.
        11. Microbial Characteristics: Will not support micro-organic growth.
        12. Clean-ability: Resists dirt pickup. Easily cleaned.
        13. Color Stability (ISO 105 A02-87 (3000 hr xenon lamp test)): 4 - 5 grey scale.
  1. PRODUCT SUBSTITUTIONS
     1. Substitutions: No substitutions permitted.
  2. ACCESSORIES
     1. Concealed fastening, as designed.
        1. Fasteners for Panel Assembly:
           1. Aluminum Type 114
     2. Installation Materials: Provide [Extruded aluminum trim] [Color matched, corrosion resistant screws] [Color matched, corrosion resistant blind rivets] [Concealed, corrosion resistant metal tongues]
     3. FABRICATION
     4. Factory fabricate solid phenolic planks. Fabricate planks to profile indicated.

1. EXECUTION
   1. MANUFACTURER’S INSTRUCTIONS
      1. Compliance: Comply with manufacturer’s product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.
   2. EXAMINATION
      1. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer’s instructions.
   3. PREPARATION
      1. Surface Preparation: [Specify applicable product preparation requirements.].

Specifier Note: Coordinate Article below with manufacturer’s recommended installation details and requirements.

* 1. INSTALLATION
     1. Install aluminum channel sub-frame, fasteners, and composite plank system per approved shop drawings.
     2. Install support and anchoring systems true and plumb to provide support for wall panels.
     3. Installed planks shall have open end joints.
        1. Fabricated Joints: Allow a minimum 1/32 inch (0.8 mm) of free space fat plank ends for movement of planks
        2. Coordinate exact sizes and dimensions with the drawings, field conditions and approved shop drawings.
     4. Every vertical section of the cladding shall have a ventilation opening at the bottom and top
     5. Cover the opening between bottom of façade and structural wall by ventilation profile to prevent animals or other objects from being hidden behind the panels.
  2. FIELD QUALITY REQUIREMENTS
     1. 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.
  3. CLEANING
     1. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer’s instructions prior to Owner’s acceptance. Remove construction debris from project site and legally dispose of debris.
  4. PROTECTION
     1. Protection: Protect installed product and finish surfaces from damage during construction.

END OF SECTION