SECTION 07420

(SOLID PHENOLIC EXTERIOR WALL PANEL SYSTEM)

GENERAL

* 1. SUMMARY

Section Includes: Solid phenolic single-skin panels for:

[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.

Related Sections: Section(s) related to this section include:

Rough Carpentry: Division 6 Rough Carpentry Section.

Aluminum Subframing: Division 6 Metal Fabrications Section.

Storefront Framing: Division 8 Aluminum Entrance and Storefront System Section.

Curtain Wall Framing: Division 8 Aluminum Curtain Wall Framing System.

* 1. REFERENCES

ASTM International:

ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials.

European National Standards (EN):

EN 438-2 Decorative High-Pressure Laminates (HPL) Sheets Based on Thermosetting Resins. Determination of Properties.

Deutches Institut fur Normung e. V. (German Standards Institute) (DIN).

* 1. SYSTEM DESCRIPTION

Performance Requirements: Provide panels 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

General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.

Product Data: Submit product data, including manufacturer’s SPEC-DATA® product sheet, for specified products.

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.

Samples: Submit selection and verification samples for finishes, colors and textures.

Quality Assurance Submittals: Submit the following:

Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties.

Manufacturer’s Instructions: Manufacturer’s installation instructions.

Manufacturer’s Field Reports: Manufacturer’s field reports specified herein.

Closeout Submittals: Submit the following:

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.

Warranty: Warranty documents specified herein.

* 1. QUALITY ASSURANCE

Qualifications:

Manufacturer Qualifications: Manufacturer is capable of providing field service representation during fabrication and approving application method.

Obtain from a single manufacturer.

Fabricator/Installer Qualifications: Installer shall be approved by the manufacturer and experienced in performing work of similar type and scope.

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.

Mock-Up Size: [Specify mock-up size.].

Maintenance: Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.

Incorporation: Mock-up may be incorporated into final construction upon Owner’s approval.

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

General: Comply with Division 1 Product Requirements Sections.

Ordering: Comply with manufacturer’s ordering instructions and lead time requirements to avoid construction delays.

Delivery: Deliver materials in manufacturer’s original, unopened, undamaged containers with identification labels intact.

Storage and Protection: Store materials protected from exposure to harmful weather conditions, at temperature and humidity conditions recommended by manufacturer.

* 1. PROJECT CONDITIONS

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

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

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

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.

PRODUCTS

* 1. SOLID PHENOLIC WALL PANEL SYSTEM

Manufacturer: EPS by American Architectural Millwork, 248 James Street, Venice, FL 34285.

Contact: American Architectural Millwork, 248 James Street, Venice, FL 34285; Telephone: 844-307-9571, E-mail: pwest@millworkusa.com.

Proprietary Product(s):

Exterior Compact EPS

Material: Solid phenolic panel.

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

Finish: Matte

Panel Core: Type FR fire retardant brown core.

Specifier Note: Specify panel size providing joint layout indicated.

Panel Standard Sizes: [120 inches × 48 inches (3050 × 1220 mm)].

Panel Thickness: [5/16 inch (8 mm)] [3/8 inch (10 mm)] [1/2 inch (12 mm)] [Select thickness.].

Modulus of Elasticity (DIN 53457): 1,200,000 psi (8000 N/mm2), minimum.

Tensile Strength (DIN 53455): 13,000 psi (90 N/mm2).

Flexural Strength (DIN 53452): 16,000 psi (110 N/mm2), minimum.

Surface Impact Resistance (EN 438-2 (11)): 9 lbf (40 N) index, minimum.

Scratch Resistance (EN 438-2 (14)): 0.79 lbf (3.5 N) index, minimum.

Fire Performance (ASTM E84 [(Type I, Class A)]):

Water Absorption (EN 438-2 (7)): Less than 1.0%.

Porosity: Nonporous surface and edges.

Microbial Characteristics: Will not support micro-organic growth.

Clean-ability: Resists dirt pickup. Easily cleaned.

Color Stability (ISO 105 A02-87 (3000 hr xenon lamp test)): 4 - 5 grey scale.

* 1. PRODUCT SUBSTITUTIONS

Substitutions: No substitutions permitted.

* 1. ACCESSORIES

Subframe Assembly: Exposed or concealed fastening, as designed.

Subframe: extruded aluminum channels, mill finish, with minimum thickness of 1/8 inch (3.2 mm).

Fasteners for Panel Assembly:

#12-11 Stainless Steel.

Spacers: [Stainless steel with a diameter and length of 1/2 inch (12.7 mm)].

Installation Materials: Provide [Extruded aluminum trim] [Color matched, corrosion resistant screws] [Color matched, corrosion resistant blind rivets] [Concealed, corrosion resistant metal tongues]

FABRICATION

Factory fabricate solid phenolic wall panels. Fabricate panels to profile indicated.

EXECUTION

* 1. MANUFACTURER’S INSTRUCTIONS

Compliance: Comply with manufacturer’s product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

* 1. EXAMINATION

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.

* 1. PREPARATION

Surface Preparation: [Specify applicable product preparation requirements.].

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

* 1. INSTALLATION

Install aluminum channel sub-frame, fasteners, and composite wall panel system per approved shop drawings.

Install support and anchoring systems true and plumb to provide support for wall panels.

Installed panels shall have open joints.

Fabricated Joints: Allow a minimum 1/2 inch (12.7 mm) of free space for movement of panels.

Vertical joints to have hat channel directly behind the joint.

Coordinate exact sizes and dimensions with the drawings, field conditions and approved shop drawings.

Every vertical section of the façade cladding shall have a ventilation opening at the bottom and top

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.

* 1. FIELD QUALITY REQUIREMENTS

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.

* 1. CLEANING

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.

* 1. PROTECTION

Protection: Protect installed product and finish surfaces from damage during construction.

END OF SECTION