

SECTION 07 4243

COMPOSITE WALL PANELS

(AAPG Carbon Zero Exterior Phenolic Cladding – Facade and Soffit Panels)

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Exterior-grade phenolic wall and soffit panels with attachment framing for facades, soffits, columns, and walls.
 - 1. Large-format phenolic wall panels.
 - 2. Phenolic exterior planks.
 - 3. Concealed-fastener (EPSc) and face-fastener (EPSf) attachment systems.
 - 4. Sub-framing, trim, and closures.
- B. Related Sections:
 - 1. Section 05 40 00 - Cold-Formed Metal Framing (sub-girts, where applicable).
 - 2. Section 07 25 00 - Weather Barriers.
 - 3. Section 07 92 00 - Joint Sealants.

1.2 REFERENCES

- A. ANSI/NEMA LD 3 - High-Pressure Decorative Laminates (compact / exterior grade).
- B. ASTM E84 - Surface Burning Characteristics of Building Materials.
- C. ASTM D256 / D5420 - Impact Resistance.
- D. ASTM E330 - Structural Performance of Exterior Wall Systems under Wind Load.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's literature describing panel composition, finishes, fastening systems, and performance.
- B. Shop Drawings: Submit elevations, panel layout, joint and reveal details, attachment framing, and flashing and closure conditions.
- C. Samples: Submit panel finish samples (woodgrain, solid color, or custom digital) as selected by the Architect.
- D. Test Reports: Submit ASTM E84 (Class A), impact, and wind-load documentation.

1.4 QUALITY ASSURANCE

- A. Manufacturer: Minimum of 5 years experience manufacturing exterior phenolic cladding.
- B. Fire Performance: Panels shall be Class A rated per ASTM E84.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver panels in protective packaging. Store flat, off the ground, protected from weather and mechanical damage.

1.6 WARRANTY

- A. Provide the manufacturer's standard warranty for exterior phenolic panels against delamination and material defects.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. American Architectural Products Group (AAPG), 248 James St., Venice, FL 34285. Tel: 844-307-9571.

2.2 EXTERIOR PHENOLIC PANELS

- A. Panel: Exterior-grade Carbon Zero solid phenolic (compact HPL) complying with NEMA LD 3, with a UV-stable decorative surface.
 - 1. Fire performance: Class A per ASTM E84.
 - 2. Weatherproof, high impact resistance, and colorfast.
- B. Finishes: Woodgrains, solid colors, and custom digital panels, as selected.
- C. Format: Large-format panels or planks, sizes as scheduled.
- D. Thickness: As required for span and wind load; nominal 6 mm to 10 mm.

2.3 ATTACHMENT SYSTEM

- A. Concealed Fasteners (EPSc): Concealed clip and rail system with color-matched components.
- B. Face Fasteners (EPSf): Color-matched face fasteners.
- C. Sub-Framing: Aluminum attachment frames and hardware supplied with the system.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, framing, and the weather barrier for compliance with requirements. Proceed only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install panels and attachment framing plumb, level, and true to line per the manufacturer's instructions and approved shop drawings.
- B. Maintain specified reveals and expansion joints to accommodate thermal movement.
- C. Install flashing, closures, and sealants to maintain the weather barrier.

3.3 ADJUSTING AND CLEANING

- A. Replace panels that are chipped, delaminated, or misaligned.
- B. Clean panel faces per the manufacturer's recommendations and protect until Substantial Completion.

END OF SECTION 07 42 43