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 12 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