

SECTION 074310 – EXTERIOR WOOD COMPOSITE PANELS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this section.

1.2 SUMMARY

- A. List of items. All work in this section shall be as indicated on the complete set of drawings and /or as listed herein. Note that this listing is primarily for the convenience of the Contractor and that all item shall be provided whether included in this listing or indicated on the plans.

1.3 QUALITY STANDARDS

- A. Provide experienced, well-trained workers competent to complete the work as specified. Fabricator/installer shall be experienced in performing work of similar type and scope.
- B. Provide all components, including related products and accessories, from a single manufacturer. Accessories other than those provided by panel manufacturer shall be approved by panel manufacturer.
- C. Panels shall be installed adhering to ventilated rain screen method per manufacturer's instructions and shall provide unobstructed cavity for continuous air flow.

1.4 SUBMITALS

- A. Submit list of materials to be provided for this work; manufacturer's data required to prove compliance with these specifications, manufacturer's installation instructions, shop drawings as required, with complete details and assembly instructions.
- B. Submit samples as required for approval by the Architect
- C. Shop drawings shall be complete with specific instructions for the installation of panels, sub-frame assemblies and other component parts.

1.5 PRECONSTRUCCION AND PREPARATION

- A. Examine and verify that job conditions are satisfactory for speedy and acceptable work.
- B. Field Measurements: Secure field measurements before preparation of shop drawings and fabrication where possible, for proper fabrication and installation of the work.
- C. Pre-Installation Meeting: Conduct pre-installation meeting to verify project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver material in manufacturer's original, unopened, undamaged containers with identification labels intact. Materials must be transported flat and kept dry and protected from the elements and handled with care.
- B. Storage and Protection: Materials must be stored flat and kept dry in a warehouse/storage facility or in an area protected from exposure to harmful weather conditions, at temperatures and humidity conditions recommended by the manufacturer.

1.7 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.

1.8 WARRANTY

- A. 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.

PART 2 – PRODUCTS

- 2.1 Basis of design Product: Subject to compliance with the requirements, provide the following product or comparable product by a separate manufacturer.

A. PARKLEX FAÇADE (Exterior grade wood composite panels)

1. Innovative Architectural Products 414.899.9983; tracy@iaproducts.net

Manufactured by:

Composites Gurea, S.A

Zalain Auzoa 13

31780

Vera de Bidasoa, Navarra

Spain

www.parklex.com

2.2 MATERIALS

A. EXTERIOR GRADE WOOD COMPOSITE PANELS: High density stratified timber panel manufactured from kraft paper treated with resins thermoset under high pressure and temperature, finished with natural timber veneers highly resistant to UV radiation and atmospheric agents. (Decorative paper simulating wood veneer is not acceptable)

1. WOOD VENEER: AMBAR, ANTRA, COPPER, GOLD, ONIX, RUBY, SILVER, QUARTZ, BRONZE (standard smooth finish) **Note: if color has been pre-determined, omit color(s) that do not apply**

2. PANEL DIMENSIONS: As indicated on drawings.

3. DIMENSIONAL TOLERANCES: Length \pm 2mm. Thickness \pm .55 mm.

4. WEIGHT: 1220 mm x 2440 mm (4' x 8') x 8 mm is approximately 73 lbs.
1220 mm x 2440 mm (4' x 8') x 10 mm is approximately 91 lbs

Note: Omit thickness not used. 8 mm for exposed system and 10 mm for concealed system

5. SURFACE BURNING CHARACTERISTICS: (F) or (S) Panels. Report on surface burning characteristics determined by ASTM E84 (twenty-five foot tunnel furnace test method) Fire Rated (F) panel meets class A, flame spread index 0 - 25 and a smoke developed index of 0 – 450. (S) Panel is “Standard” not Class A.

6. Resistance to UV light: EN438-2; 2005 apt. 29. Panels must be tested for a minimum of 3000 hours of exposure to Xenon Arc lamp resulting in a minimum grey scale rating of 3 and an appearance rating of 5.

7. THERMAL PROPERTIES:

Thermal conductivity k 0.104 (Btu/h)/ft-F
 Thermal resistance R (10 mm) 0.315 h-ft²-F/Btu

8. TECHNICAL DATA:

ASTM Test Results

Characteristics	Standards and test methods	Values
Density (10mm)	ASTM D 2395 Method A	1.51 g/cc
Moisture Content	ASTM D 4442 Method A	2.1%
Water Absorption (24 h/23°C)	ASTM D 1037 Method B	0.34% by mass 0.56% by volume
Thickness Swelling		0.59%
Flexural Properties	ASTM D 1037	
Modulus of Elasticity		
veneer parallel to long dimension	dry	19.0 GPa (2,756,000 psi)
veneer perpendicular to long dim.	soaked	18.0 GPa (2,611,000 psi)
	dry	9.0 GPa (1,305,000 psi)
	soaked	8.7 GPa (1,261,000 psi)
Bending Strength (MOR)		
parallel to long direction	dry	193 MPa (28,000 psi)
perpendicular to long direction	soaked	200 MPa (29,000 psi)
	dry	93 MPa (13,500 psi)
	soaked	108 MPa (15,700 psi)
Bond Durability maximum load	APA PS-1 6.1.5 reference	2.58 kN (580 lb-f)
	vacuum/pressure soaked	3.47 kN (780 lb-f)
	boiled (2 cycles)	2.68 kN (600 lb-f)
Surface Burning Characteristics	ASTM E-84	*Class A (I)

*ASTM E84 Class A = (F) panel, (S) = Standard panel

2.3 ACCESSORIES

A. Provide Trim, gaskets, fasteners and other related accessories recommended by the manufacturer to provide a complete system.

B. Sub-Framing and Fasteners: Provide sub-framing component and fasteners by manufacture or approved by manufacture.

2.4 FABRICATION

A. Fabricate composite panels and accessory items in accordance with manufacturer's recommendations and approved submittals.

B. Fabricate panels to sizes indicated.

PART 3 – EXECUTION

3.1 INSPECTION

- A. Examine alignment of backup structure prior to installing sub-frame. Do not proceed until all defects are corrected.

3.2 INSTALLATION

- A. Comply with Manufacturer's guidelines for panel installation
- B. Attachment system: Hidden fastening system with hanger system or Exposed fastening system with screws as per manufacturer's system details. Vertical supports allowing minimum of 1" cavity behind panels to allow sufficient ventilation. ***(Note: Omit system not use)***
- C. Install panels plumb and level and accurately spaced in accordance with manufacturer's recommendations and approved submittals.
- D. Fasten solid exterior wall panels to supporting substrate with fasteners approved for use with adjoining construction.
- E. Accessory Items: Install corner profiles, gaskets and trim with fasteners and adhesive appropriate for use with adjoining constructions as indicated on drawings and as recommended by manufacturer.

3.3 DAMAGED MATERIAL

- A. Repair or replace all damaged materials to the satisfaction of the Manufacturer.

3.4 CLEANING

- A. Do not use abrasive cleaners or cleaning tools. Dry and wipe down panel sections as work progresses.
- B. Provide final cleaning of the panel system.

3.5 PROTECTION

- A. Protect installed product and finish surfaces from damage during construction.

END OF SECTION

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