

SECTION **07430** - EXTERIOR WOOD COMPOSITE PANELS

PARKLEX FACADE

* NOTE TO SPECIFIER:

Manufactured by:

Composites Gurea, S.A.
Zalain Auzoa 13
31780
Vera de Bidasoa, Navarra
Spain
<http://www.parklex.com/>

PART 1 - GENERAL

1.1 WORK

A. Provide everything required to complete the work as shown on the Drawings and specified herein.

1.2 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. Unless approved by the Architect, provide all related products and accessories from one manufacturer.

C. Ventilated rainscreen system shall provide complete secondary drainage system, draining at base of wall. Supporting substrate for exterior wall panels shall comply with all current codes and regulations.

1.3 SUBMITTALS

A. Submit the following within 30 calendar days after receiving the Notice to Proceed.

**Note to specifier: Submittals are usually required within a specified number of calendar days after the Contractor is given the Notice to Proceed. 30 calendar days is a common requirement for medium- to large-size projects. Your choice of time will depend on the size of the project and the Owner's need for an expedited schedule.*

B. 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 of the ventilated rainscreen system, as required, with complete details and assembly instructions.

C. Submit samples as required for approval by the Architect.

**Note to specifier: Samples may be requested with a different time limit than other submittals. Details of the samples requested -- sizes, finishes, etc. -- are usually specified. Delete selection samples if colors have already been selected.*

D. Shop Drawings for Ventilated Rainscreen System: Shop Drawings shall be complete with specific instructions for the installation of panels, sub-frame assemblies and other component parts. Include engineering analysis. Drawings shall indicate sizes of ventilation openings and methods of preventing

unwanted insects or animals from entering cavity behind panels.

1.4 PRECONSTRUCTION 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.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials 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, protected from exposure to harmful weather conditions, at temperatures and humidity conditions recommended by the manufacturer.

1.6 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.

1.7 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. 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 MANUFACTURERS

- A. Provide PARKLEX FACADE [Exterior Grade Wood Composite Panels]

Local Representative Contact:

Arcspec – Barry Meyer
847-362-1590
barry@arcspec.us

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B. Substitutions: Not Permitted.

2.2 MATERIALS

A. EXTERIOR GRADE WOOD COMPOSITE PANEL: 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.

B. Decorative paper simulating wood veneer is not acceptable.

1. WOOD VENEER:

GOLD
AMBAR
RUBI
COPPER
ONIX
ANTRA
QUARTZ
SILVER
Smooth surface (standard).

** NOTE TO SPECIFIER: Delete veneers not used on the project.*

2. PANEL DIMENSIONS:

1220mm (48") x 2440mm (96") x thickness.
Thickness: 8mm, 10mm, 12mm

** NOTE TO SPECIFIER: Delete thicknesses not used on the project.*

3. DIMENSIONAL TOLERANCES:

Length ± 2 mm, Width ± 2 mm, Thickness ± 0.55 mm (10mm thick panel).

4. WEIGHT:

(8mm); 1220mm x 2440mm x 8mm panel weighs approximately 73 pounds.
(10mm); 1220mm x 2440mm x 10mm panel weighs approximately 93 pounds.

** NOTE TO SPECIFIER: Delete thicknesses not used on the project.*

5. SURFACE BURNING CHARACTERISTICS:

Report on surface burning characteristics determined by ASTM E-84 (twenty-five foot tunnel furnace test method) Standard (S) panel, meets Class B (II) - 75 or under flame spread, with a flame spread index of 40 and smoke developed index of 35. Class A (Class I) rating - with a flame spread index of 5 and smoke developed index of 10 is available in (F) panel.

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

7. THERMAL PROPERTIES:

Parameter Description	Metric	English
Thermal Conductivity k	0.18 W/m-K	0.104 (Btu/h)/ft-F
Thermal Resistance R (10mm) Equivalent to R-9.61 (thermal resistance of 1 ft of Parklex insulation, given in h-ft ² -F/Btu).	0.0556 K-m ² /W	0.315 h-ft ² -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)
	soaked	18.0 GPa (2,611,000 psi)
veneer perpendicular to long dim.	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)
	soaked	200 MPa (29,000 psi)
perpendicular to long direction	dry	93 MPa (13,500 psi)
	soaked	108 MPa (15,700 psi)
Bond Durability	APA PS-1 6.1.5	
maximum load	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 B (II) / Class A (I)

9. EUROPEAN TEST RESULTS:

Characteristics	Standards and test methods	Values
Visible Density	UNE 53.020 (NF T 51-005)	1.4 gr/cc (> 1400 daN/m ³ ±50)
Water Absorption	24 h/23°C	<1.5% in mass
Moisture Content	---	<1%
Formaldehyde Content	UNE-EN 312-1:1.997	Class 1 (<1 mg/100g) (9 ppm - parts per million)
Bending Strength		
lengthways	ISO 178	190 MPa
crosswise		95 MPa
Stretch Modulus		
lengthways	ISO 178	>18,000 MPa
crosswise		>7,800 MPa
Traction Shearing	NF EN 314-1	
	1) 2x4 h in boiling water	ShearingR N/mm ² /80% adhesion
	2) 72 h in boiling water	ShearingR N/mm ² /70% adhesion
Compression Strength	ISO 604	220 MPa
External Glueing Quality	EN 311	surface tearing <4MPa
	72 h boiling water	
Toughness	UNE 56.534/77	16.8
Resistance to Abrasion	UNE 23-727/90 (EN 438)	1,200/13,000 cycles (7,000)
Resistance to Stains	EN 438	5
Resistance to Cigarette Burns	EN 438	2
Fire Reaction	UNE 23-727/90	Class M2/M1
Fume Toxicity/Opacity	---	Class F1

2.3 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 "General Guidelines for Panel Installation" available at <http://www.parklex.com>
- B. Attachment System: Concealed fixing system as per manufactures system details. Vertical supports allowing 1" minimum cavity behind panels to allow sufficient air flow.
- C. Install solid exterior wall 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. Interface with Other Work:

** NOTE TO SPECIFIER: Include adjacent surfaces to which panels must adjoin.*

1. [Specify applicable requirements for interface with other work.].

F. Accessory Items: Install corner profiles, gaskets and trim [Insert accessory items.] with fasteners and adhesive appropriate for use with adjoining construction as indicated on drawings and as recommended by manufacturer.

3.3 DAMAGED MATERIAL

A. Repair or replace all damaged material to the satisfaction of the Architect.

3.4 CLEANING

A. Do not use abrasive cleaners or cleaning tools. Dry wipe down panel sections as work progresses.

B. Provide final cleaning of the wall system.

3.5 PROTECTION

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

END OF SECTION