

## CSI 3-Part Product Specification

### STRAND WOVEN BAMBOO FLOORING

### SECTION 09 62 23

8 Pages

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#### GENERAL NOTES TO SPECIFIER:

THIS SPECIFICATION SECTION HAS BEEN PREPARED TO ASSIST DESIGN PROFESSIONALS IN THE PREPARATION OF PROJECT OR OFFICE MASTER SPECIFICATIONS. IT FOLLOWS GUIDELINES ESTABLISHED BY THE CONSTRUCTION SPECIFICATIONS INSTITUTE, AND THEREFORE MAY BE USED WITH MOST MASTER SPECIFICATION SYSTEMS WITH MINOR EDITING.

PLEASE CAREFULLY EDIT TO SUIT YOUR PROJECTS SPECIFICATIONS. ADJUST ITEMS AS NECESSARY AND DELETE THOSE THAT DO NOT PERTAIN. VERIFY THAT THE REFERENCED SECTION NUMBERS AND TITLES ARE CORRECT. BECAUSE OF THE VARIATION IN SPECIFICATION SYSTEMS CURRENTLY IN USE, ARTICLE AND PARAGRAPH NUMBERS AND TILES MAY DIFFER SOMEWHAT THAN WHAT'S PRESENTED HEREIN.

IF THE PROJECT MANUAL DOES NOT CONTAIN THE NECESSARY SECTIONS, ADDITIONAL INFORMATION SHOULD BE INCLUDED UNDER THE APPROPRIATE ARTICLES OR ATTACHED TO THE END OF THE DOCUMENT LABELED WITH THE CORRECT SUB-HEADINGS.

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. Ambient's Strand bamboo flooring can be installed via the nail down or glue down method, depending on the sub-floor type and condition.
- B. Related Sections: LEED®: US Green Building Council, Leadership in Energy and Environmental Design Green Building Rating System™. Ambient's bamboo flooring contributes to LEED® EQ Credit 4.4 Environmental Requirements Low-Emitting Materials and MR Credit 6 Rapidly Renewable Materials.

##### 1.02 SUBMITTALS

###### A. Submit following items:

- 1. Samples:
  - a. 6 or 12 inch long piece of flooring plank, with the supplier/manufacturer identified.
  - b. One of each specified accessory, minimum 4 inches long.
- 2. Shop Drawings: Include direction of flooring, fastening method to be used, patterns and transition accessories. Include large scale details of accessories and details of all transitions.
- 3. Product Data:
  - a. Flooring Specification Sheet. Include:
    - 1. Finish specs: finish type, composition and manufacturer
    - 2. Material Safety Data Sheet (MSDS)

- 3. Manufacturer's installation guidelines and installation requirements
- 4. NWFA Technical Reference Manual
- b. Accessories. Include:
  - 1. Finish specs
  - 2. Accessory profiles
- c. Installation adhesive: non required
- d. Warranty
- 4. Quality Assurance/Control Submittals:
  - a. Qualifications: Proof of installers' qualifications.
  - c. Manufacturer's Installation Guidelines.

B. Closeout Submittals: submit following items:

- 1. Maintenance instructions.
- 2. Warranty information.

### 1.03 QUALITY ASSURANCE

A. Qualifications:

- 1. Manufacturer Qualifications:
  - a. Minimum 10 years experience in manufacturing and distributing bamboo flooring.
  - b. Proof of legal right to provide product.
  - c. Member: U.S. Green Building Council, National Wood Flooring Association
- 2. Installer Qualifications:
  - a. Minimum three years experience in bamboo/hardwood flooring installation.

B. Pre-Installation Meeting:

- 1. Convene meeting at project site within one week of scheduled start of installation with representatives of the following in attendance: Architect, Owner, General Contractor, and Sub-Contractor.
- 2. Review project/site conditions, requirements of related work, requirements for operation of HVAC system, installation guidelines, storage and handling procedures, and protection measures.
- 3. Keep minutes of meeting including responsibilities of various parties and deviations from specifications and guidelines for installation.
- 4. Distribute minutes to attendees within 48 hours.

### 1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver flooring to project site in original boxes.
- B. Allow no less than 5-14 days prior to start of installation for flooring to arrive.
- C. Check manufacturer installation guide for detailed acclimation instructions. Let the flooring acclimate to site conditions accordingly.

### 1.05 PROJECT/SITE CONDITIONS

- A. Environmental Requirements: Room temperature and humidity of all installation spaces, flooring and adhesive must be maintained at normal occupancy (35% - 55% humidity), room temperature (60 - 70 degrees F) for a minimum of 72 hours prior to installation. HVAC systems must be operational and controlling site temperature and humidity.

## 1.06 WARRANTY

- A. Warranty for Prefinished Ambient Strand Bamboo Flooring:
1. Ambient Residential Structural Warranty: Lifetime warranty against de-lamination, separation, buckling or cupping as a result of a manufacturing defect. Please see [www.AmbientBP.com](http://www.AmbientBP.com) for our current product warranty.
  2. Ambient Commercial Structural Warranty: 15 years against de-lamination, separation, buckling or cupping as a result of a manufacturing defect. Please see [www.AmbientBP.com](http://www.AmbientBP.com) for our current product warranty.
  3. Ambient Residential Finish Warranty: Lifetime against wear through to the underlying flooring or separation from the flooring as a result of a manufacturing defect. Please see [www.AmbientBP.com](http://www.AmbientBP.com) for our current product warranty.
  4. Ambient Commercial Finish Warranty: 5 years against wear through to the underlying flooring or separation from the flooring as a result of a manufacturing defect. Please see [www.AmbientBP.com](http://www.AmbientBP.com) for our current product warranty.

## PART 2 – PRODUCTS

### 2.01 MANUFACTURER

- A. Ambient Bamboo Products (Phone: 800-710-7070)  
8230 Preston Court Unit C (Fax: 301-498-0238)  
Jessup, MD 20794 (Email: [info@AmbientBP.com](mailto:info@AmbientBP.com))  
Website: <http://www.AmbientBP.com>
- B. Bamboo Flooring Strand Type:
1. Bamboo strand composite in a pressure treated adhesive base to form a high density homogenous bamboo plank.
    - a. Color: [several options available]
    - b. Thickness: [several options available]
    - c. Joint: Tongue and groove joint or click lock.
    - d. Edges and ends: micro bevel.
- C. Substitutions: None Permitted

### 2.02 MATERIALS

- A. Strand Bamboo Flooring:
1. Species: Moso Bamboo.
  2. Size: [several options available]
  3. Milling: Tongue and groove with micro-bevel edge.
  4. Back: Channeled and sealed with factory-finish seal coat.
  4. Finish: UV cured polyurethane, solvent free, non-off gassing 10-Coat Factory Finish with aluminum oxide.
  6. ASTM – American Society for Testing and Materials International  
Physical Property Performance Requirements:
    - a. Hardness: ASTM D 1037 Standard Test Method for wood-based fiber and particle panel materials  
Janka: as high as 5,342
    - b. Dimensional Stability at 20% RH: ASTM D 1037 Standard Test Method for wood-based fiber and particle panel materials:

Dimensional change coefficients:

-0.06 parallel / -0.37 perpendicular / -0.67 thickness

c. Slip Resistance: Coefficient of Friction: ASTM D2394 Standard Test Methods for Simulated Service Testing of Wood and Wood-Base Finish Flooring

Static .36 Sliding .447

d. \*Flammability: ASTM E 648 Standard Test Method for critical radiant flux of floor-covering systems using a radiant heat energy source:

1.0 plus. Highest in Class-1 Interior Floor Finish rating

e. \*Smoke Density: ASTM E 622 Standard Test Method for smoke density with heat flux: Maximum 269 in flaming mode; 329 in non-flaming mode

f. Compressive Strength: ASTM D 3501 Standard Test Method for wood-based structural panels in compression:

Minimum 7,459 psi (51.4 MPa)

g. Abrasion Resistance: ASTM D 4060, CS-17 Taber abrasive wheels. Standard Test Method for abrasion resistance of organic coatings by the Taber Abraser:

Final wearthrough: 61ug/cycle

Minimum 15,000 cycles

h. Moisture Content: ASTM D 4442, Oven Dry Method Standard Test Method for direct moisture content measurement of wood and wood-base materials:

8.4 percent, average

i. Formaldehyde Emissions: ASTM E 1333 Standard Test Method for determining formaldehyde concentrations in air emission rates from wood using a large chamber:

less than 0.01 ppm

j. Thermal Resistance: ASTM C 518-04 Standard Test Method for steady-state thermal transmission properties by means of the heat flow meter apparatus:

R value of 0.54

k. No added urea formaldehyde.

\*\*note\*\*: data items listed with an \* come from similarly tested products and are expected to be close to actual measurement

B. Installation Adhesive for glue down installations: 100% urethane premium wood floor adhesive or equivalent.

C. Nails or Staples for nail down installations: 18 GA "L" Cleat

D. Recommended pneumatic nailer:

**Primatech Model Q550 ALR** (pneumatic) or

1-1/2 inch long, 18 gauge cleat

Manufacturer suggested psi setting of 95-125\*

\*It is the sole responsibility of the installer to find the correct level of psi per installation conditions, the numbers listed are manufacturer recommendations \*

F. Subfloors

1. Concrete subfloor - see List of Acceptable Subfloor Types section in installation guide.

a. Concrete shall be checked for flatness and moisture emission prior to installation, low spots and voids shall be filled to a minimum of 3/16" in a 10 ft. radius or 1/8" in a 6 foot radius.

b. Surface should be smooth, clean and free of debris or protruding fasteners.

- c. 100% urethane adhesive containing moisture barrier must be used to glue down over concrete.
- 2. Wood subfloor
  - a. 3/4 inch CDX plywood for 24 inch on center floors.
  - b. 5/8 inch CDX plywood for 12 inch on center and 16 inch on center floors.
  - c. Wood subfloors shall be checked for flatness prior to installation, low spots and voids shall be filled to a minimum of 3/16" in a 10 ft. radius or 1/8" in a 6 foot radius.
  - d. Wood subfloors should not be emitting more than 12% moisture content.

## 2.03 ACCESSORIES

- A. Stair Tread: Matches flooring grain, color, and finish. Multiple sizes available.
- B. Stair Riser: Matches flooring grain, color, and finish. Multiple sizes available.
- C. Stair Nose: Matches flooring grain, color, and finish. 72" length.
- D. Reducer: Matches flooring grain, color, and finish. 72" length.
- E. T-Molding: Matches flooring grain, color, and finish. 72" length.
- F. Quarter Round/Shoe: Matches flooring grain, color, and finish. 72" length.
- G. Baseboard: Matches flooring grain, color, and finish. 72" length.
- H. Baby Threshold: Matches flooring grain, color, and finish. 72" length.
- I. Register Vent: Matches flooring grain, color, and finish. Multiple sizes available.

## PART 3 – EXECUTION

### 3.01 EXAMINATION

- A. Examine substrates upon which the flooring will be installed.
  - 1. Verify that the subfloor is clean, dry, and free of contaminates or protruding fasteners.
  - 2. Test subfloor for moisture vapor emissions using a Calcium Chloride or equivalent test. Do not install flooring if vapor pressure exceeds 3 lbs per 1,000sf (15g per m<sup>2</sup>) within a 24 hour period.
    - a. In multiple story buildings, test each floor level scheduled to receive bamboo flooring.
    - b. Mark test location(s) on As-Built Drawings.
- B. Verify that HVAC system is operating and maintaining an occupancy level temperature and humidity conditions.
- C. Coordinate with responsible entity to correct unsatisfactory installation conditions.
- D. Commencement of work by installer is considered an acceptance of substrate conditions.
- E. Prior to installation, the installer shall examine all material and determine that it matches the work order.

### 3.02 PREPARATION

- A. Please reference the Installation and Maintenance Guidelines.  
<http://ambientbp.com/pdf/bamboo-flooring-installation-instructions.pdf>
- B. Acclimatization: Open flooring boxes, remove shrink wrap and foam packing at a minimum of 72 hours prior to start of installation.

C. Grind and or fill subfloor using methods and materials appropriate to the subfloor construction to eliminate humps and depressions.

D. Because bamboo is a natural fiber, variations in color naturally occur from plank to plank. Each box should be inspected for differences in color with color variation staggered throughout the floor. To ensure the best results, work out of several boxes simultaneously.

### 3.03 INSTALLATION

A. Please reference the Installation and Maintenance Guidelines provided at our website:

<http://ambientbp.com/pdf/bamboo-flooring-installation-instructions.pdf>

B. Install flooring planks by gluing to substrate. Flooring may be glued on or above grade.

C. Lay flooring perpendicular to the flooring joists or in the direction(s)/pattern(s) as shown on Drawings.

D. Accessories: Install using methods appropriate to the accessory and flooring system.

### 3.04 CLEANING

A. Reference maintenance instructions at <http://ambientbp.com/pdf/maintenance-instructions-bamboo-floor.pdf>

### 3.05 PROTECTION

A. Cover already installed floors with heavy paper or cardboard to keep debris from foot traffic from damaging floor, but for no longer than 14 successive days to avoid discoloration. Tape together if necessary. (please note the only tape approved for use on our floors and moldings is 3M/Scotchguard #2080 tape)

B. If glued down, avoid foot traffic as much as possible until proper cure time has passed and do not move heavy furniture on floors for no less than 24 hours or in accordance with the manufacturer.

END OF PRODUCT SPECIFICATION