

## CSI 3-Part Product Specification

### AMBIENT 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. (NUMBERS AND TITLES REFERENCED ARE BASED ON *MASTER FORMAT, 1995 EDITION*)

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 Strand bamboo flooring and matching accessories should be installed by the glue down method.

*ANY METHODS OF INSTALLATION OF AMBIENT STRAND BAMBOO OTHER THAN GLUE DOWN SHOULD BE CONSULTED WITH THE MAUNFACTURER. INCLUDE SECTION NUMBER AND TITLE BELOW FOR OTHER TYPES OF FLOORING MATERIALS BORDERING THE BAMBOO FLOORING.*

B. Related Sections: LEED®: US Green Building Council, Leadership in Energy and Environmental Design Green Building Rating System™.  
Ambient Strand 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. Reference Section 01 33 00–Submittal Procedures; 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. Proof of supplier's legal right to provide product
    - 3. Material Safety Data Sheet (MSDS)
    - 4. Certified Hardness Tests, Janka results
    - 5. Manufacturer's installation guidelines and installation requirements
    - 6. NWFA Technical Reference Manual
  - b. Accessories. Include:
    - 1. Finish specs
    - 2. Accessory profiles
  - c. Installation adhesive:
    - 1. Material Safety Data Sheet (MSDS)
  - d. Warranty
- 4. Quality Assurance/Control Submittals:
  - a. Qualifications:
    - 1. Documented proof for legal right of supplier to provide product
    - 2. Proof of installers' qualifications.
  - b. Test Report: Copy of name and contact information of manufacturer for specified Physical Property Performance Requirements.
  - 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, Business for Social Responsibility, National Association of Floor Covering Distributors, National Wood Flooring Association, World Floor Covering Association.
- 2. Installer Qualifications:
  - a. Minimum three years experience in bamboo/hardwood flooring installation.
  - b. Minimum three years experience in installation of bamboo/hardwood flooring over radiant heating systems.

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 days prior to start of installation for flooring to arrive.

C. Check with manufacturer for acclimation instructions. Let the flooring acclimate to site conditions accordingly.

1. Do not store boxes directly on concrete or near outside walls.

#### 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 (40% - 60% 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.

B. Floors being installed over Radiant Heat Systems should comply with the following regulations.

1. The flooring must be on the Radiant Heat System for 72 hours while running to properly acclimate.

2. If the Radiant Heat System is in concrete it should be run prior to acclimating to burn off any excess moisture in the concrete.

3. The Radiant Heat System should be left running for 72 hours after the flooring has been installed.

#### 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.AmbientFloors.com](http://www.AmbientFloors.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.AmbientFloors.com](http://www.AmbientFloors.com) for our current product warranty.

3. Ambient Residential Finish Warranty: 30 years against wear through to the underlying flooring or separation from the flooring as a result of a manufacturing defect. Please see [www.AmbientFloors.com](http://www.AmbientFloors.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.AmbientFloors.com](http://www.AmbientFloors.com) for our current product warranty.

## PART 2 – PRODUCTS

### 2.01 MANUFACTURER

A. Ambient Bamboo Products (Phone: 800-710-7070)

8291 Patuxent Range Rd. Suite A (Fax: 301-498-0238)

Jessup, MD 20794 (Email: sales@AmbientBP.com)  
Website: http://www.AmbientFloors.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: [Natural] [Carbonized] [Cinnamon] [Tiger] [Sangria] [Brazilian Cherry] [Chocolate] [Teak] [Rosewood] [Rustic Ivory] [Rustic Sienna]
  - b. Thickness: 9/16 inch (14 mm)
  - c. Joint: Tongue and groove joint.
  - d. Edges and ends: micro bevel.

C. Substitutions: None Permitted

## 2.02 MATERIALS

A. Strand Bamboo Flooring:

1. Specie: Moso Bamboo.
2. Size: 3-3/4 inch (96 mm) wide by 9/16 inch (14 mm) thick by 72 inch (1830 mm) length.
  - \*Tiger - 5 inch (127 mm) wide by 9/16 inch (14mm) thick by 72 inch (1830 mm) length only.
  - \*Natural, Carbonized, Cinnamon, Rustic Ivory and Rustic Sienna available in mixed width and length - 5 inch (127 mm) wide by 9/16 inch (14mm) thick by 72 inch (1830 mm) / 36 inch by 3-3/4 inch (96 mm) by 9/16 inch (14 mm) and 36 inch (914 mm) by 2-1/4 inch (57 mm) by 9/16 inch (14 mm)
3. Milling: Tongue and groove with micro-bevel edge.
4. Back: Channeled and sealed with factory-finish seal coat.
5. Finish: German Klumpp UV cured, solvent free, non-off gassing 8-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: Natural 3,944; Carbonized 3,544; Cinnamon 3,944; Tiger 3,544; Sangria: 3,544; Brazilian Cherry: 3,544; Chocolate: 3,544; Teak: 3,944; Rosewood: 3,544; Rustic Ivory: 3,944; Rustic Sienna: 3,544
  - b. Dimensional Stability at 20% RH: ASTM D 1037 Standard Test Method for wood-based fiber and particle panel materials:  
Dimensional change coefficients:  
-0.04 parallel / -0.27 perpendicular / -0.63 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:

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:

7.4 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:

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 of Ambient Strand Woven.

B. Installation Adhesive: One-part water-free ultra premium urethane wood floor adhesive or equivalent.

C. Nails or Staples:

***Ambient strongly recommends the use of a flooring adhesive instead of a nail gun/stapler for installation of the Strand Woven product***

Below are the nail guns/staplers that have been tested with our Ambient Strand and Ambient Fusion and proved to work. If taking this route, please always test your nail gun/stapler on a test plank to ensure proper pressure.

1. **Powernail**

- **Model 50P Flex** (pneumatic)
- 1-1/4 inch long, 18 gauge cleat with adjustable foot and no shims
- Manufacturer suggested psi setting of 75-95\*
- **Model 50P** (pneumatic)
- 1-1/2 inch long, 18 gauge cleat with a standard adapter pad and no shims
- Manufacturer suggested psi setting of 75-95\*
- **Model 200** (pneumatic)
- 1-1/2 inch long, 20 gauge (E) cleat with a (U-1) adapter pad and no shims
- Manufacturer suggested psi setting of 75-95\*
- **Model 50M** (manual)
- 1-1/4 inch long, 18 gauge with a standard adapter pad and no shims
- **Model 250** (manual)
- 1-1/2 inch long, 20 gauge (E) cleat with a (U-1) adapter pad and no shims

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

D. Subfloors

***Please test your subfloors to ascertain the need of a moisture barrier, or not. While Ambient strongly recommends the use of a moisture barrier underneath this product, it may not be needed if you can be***

*certain that the subfloor, in entirety, will not emit moisture vapor in excess of 3 lbs per 1,000sq. ft. (15g per m2) within a 24 hour period.*

1. Concrete subfloor
  - a. Concrete 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.
  - b. Surface should be smooth, clean and free of debris or protruding fasteners.
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.

## 2.03 ACCESSORIES

A. Stair Treads: 11-3/4 inches (298.4 mm) wide by 1 inch (25.4 mm) thick in 48 inch (1219.2 mm) lengths [ \_\_\_\_\_ inches ( \_\_\_\_\_ mm) wide by \_\_\_\_\_ inches ( \_\_\_\_\_ mm) thick]. Match flooring grain, color, and finish. **\*\*Available in custom length, widths and heights\*\***

B. Stair Riser: 7-1/8 inches (189.9 mm) wide by 9/16 inch (14.28 mm) thick in 48 inch (1219.2 mm) lengths [ \_\_\_\_\_ inches ( \_\_\_\_\_ mm) wide by \_\_\_\_\_ inches ( \_\_\_\_\_ mm) thick]. Match flooring grain, color, and finish. **\*\*Available in custom lengths and widths\*\***

C. Stair Nosing: [3-5/8 inches (92 mm) wide by 14/16 inches (22.22 mm) thick] [ \_\_\_\_\_ inches ( \_\_\_\_\_ mm) wide by \_\_\_\_\_ inches ( \_\_\_\_\_ mm) thick]. Match flooring grain, color, and finish. **\*\*Stock size is 72" length. Available in custom sizes\*\***

D. Floor Reducer: [2-3/4 inches (69.85 mm) wide by 9/16 inch (14.28mm) thick] [ \_\_\_\_\_ inches ( \_\_\_\_\_ mm) wide by \_\_\_\_\_ inches ( \_\_\_\_\_ mm) thick]. Match flooring grain, color, and finish. **\*\*Stock size is 72" length. Available in custom sizes\*\***

E. T-Mold: [2 inches (50.8 mm) wide by 5/8 inch (15.87 mm) thick] [ \_\_\_\_\_ inches ( \_\_\_\_\_ mm) wide]. Match flooring grain, color, and finish. **\*\*Stock size is 72" length. Available in custom sizes\*\***

F. Base Shoe: [5/8 inch (15.87 mm) high by 1/2 inch (12.7 mm) thick] [ \_\_\_\_\_ inches ( \_\_\_\_\_ mm) wide by \_\_\_\_\_ inches ( \_\_\_\_\_ mm) thick]. Match flooring grain, color, and finish. Note: available only in 72" length.

G. Base Molding: [3-1/8 inches (79.37 mm) high by 3/8 inch (9.52 mm) thick. [ \_\_\_\_\_ inches ( \_\_\_\_\_ mm) wide by \_\_\_\_\_ inches ( \_\_\_\_\_ mm) thick]. Match flooring grain, color, and finish. Note: available only in 72" length.

H. Baby Threshold: [2 inches (50.8 mm) wide by 1 inch (25.4 mm) thick] [ \_\_\_\_\_ inches ( \_\_\_\_\_ mm) wide by \_\_\_\_\_ inches ( \_\_\_\_\_ mm) thick]. Match flooring grain, color, and finish. Note: available only in 72" length.

I. Floor Vent: [7 9/16 inches (192.08 mm) wide by 9/16 inches (14.28 mm) thick by 12 13/16 inches (325.43 mm) long.] Match flooring grain, color, and finish.

## 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.

***Please test your subfloors to ascertain the need of a moisture barrier, or not. While Ambient strongly recommends the use of a moisture barrier underneath this product, it may not be needed if you can be certain that the subfloor, in entirety, will not emit moisture vapor in excess of 3 lbs per 1,000sq. ft. (15g per m<sup>2</sup>) within a 24 hour period.***

- 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. Acclimatization: Open flooring boxes, remove shrink wrap and foam packing at a minimum of 3 days prior to start of installation.
- B. Grind and or fill subfloor using methods and materials appropriate to the subfloor construction to eliminate humps and depressions.
- C. 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. Ambient Strand Bamboo Flooring: Please reference the Installation and Maintenance Guidelines.
- 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 Section 07 14 00 Cleaning.
- B. Clean products according to manufacturer regulations.

### 3.05 PROTECTION

- A. Cover already installed floors with heavy paper or cardboard to keep debris from foot traffic from damaging floor. Tape together if necessary.
- B. Avoid foot traffic as much as possible until proper cure time has passed.
- C. Do not move heavy furniture on floors for no less than 24 hours or in accordance with the manufacturer.

END OF PRODUCT SPECIFICATION