



Teragren LLC
12715 Miller Road NE, Suite 301
Bainbridge Island WA 98110
Tel: 206.842.9477
Toll-free: 800.929.6333
Fax: 206.842.9456
Email: info@teragren.com
www.teragren.com

PREFINISHED ENGINEERED WIDE PLANK
STRAND BAMBOO FLOATING FLOOR

With Xcora™ Technology
and Valinge-Patented Self-Locking System



This product has been certified to meet the requirements of the flooring products certification program for indoor air quality.
AS CERTIFIED BY SCS
COMPLETE DETAILS ARE AVAILABLE AT WWW.FFCO.COM
CERT # SCS-FS-01878

MF '04 SECTION 09640
DOC:SPWP 042312

LEED MR6, IEQ 4.3, IEQ 4.4

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.

EDIT CAREFULLY TO SUIT PROJECT REQUIREMENTS. MODIFY AS NECESSARY AND DELETE ITEMS THAT ARE NOT APPLICABLE. VERIFY THAT REFERENCED SECTION NUMBERS AND TITLES ARE CORRECT. (NUMBERS AND TITLES REFERENCED ARE BASED ON MASTER FORMAT, 2004 EDITION)

THIS SECTION ASSUMES THE PROJECT MANUAL WILL CONTAIN COMPLETE DIVISION 1 DOCUMENTS INCLUDING SECTIONS 013300 -SUBMITTAL PROCEDURES, 016000 -PRODUCT REQUIREMENTS, 017700 -CLOSEOUT PROCEDURES. CLOSE COORDINATION WITH DIVISION 1 SECTIONS IS REQUIRED. IF THE PROJECT MANUAL DOES NOT CONTAIN THESE SECTIONS, ADDITIONAL INFORMATION SHOULD BE INCLUDED UNDER THE APPROPRIATE ARTICLES.

PART 1 - GENERAL

1.01 SUMMARY

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Prefinished Engineered Wide Plank
Strand Bamboo Floating Floor with Xcora™ Technology
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- A. Section Includes: Prefinished engineered wide-plank strand bamboo flooring with Välinge-patented U.S. # 7,121,059 B2 and EP 108 4317 glueless, self locking system, and matching accessories installed by the [floating floor method.] [glue down method.]

INCLUDE SECTION NUMBER AND TITLE BELOW FOR OTHER TYPES OF FLOORING MATERIALS-BORDERING THE BAMBOO FLOORING, AND FINISHED TRIM SUCH AS BASEBOARDS IF NOT INCLUDED IN THIS SECTION.

- B. Work in other sections:
1. For project sustainability requirements, See 018113 “Sustainable Design Requirements”

1.02 SUBMITTALS

- A. Submit the following items:

1. Product Data:
 - a. Flooring Specification Sheet.
 - b. Finish data: finish type, composition and manufacturer (See summary in section 2.02).
 - c. Proof of supplier’s legal right to provide product
 - d. Material Safety Data Sheet (MSDS) (keep in only if required for LEED submittal)
 - e. [FloorScore®](#) certification #SCS-FS-01878: Air quality certification from Resilient Floor Covering Institute - www.rfci.com
 - f. Certified Hardness Tests, Janka results (See summary in section 2.02).
 - g. Manufacturer’s installation guidelines and installation requirements.
 - h. ISO-9001 and 14001 factory certifications.
2. Accessory profiles (See specification in section 2.03).
3. Warranty for Architect’s review.
4. 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. Make shop drawings in module required by Architect or electronically using Architects’ format.
5. Samples:
 - a. 4 or 12 inch (100 or 300 mm) long strip of flooring plank, with manufacturer identified. Submit enough samples to show full range of color and grain variation.
 - b. One of each specified accessory, minimum 4 inches (100 mm) long.
6. Quality Assurance/Control Submittals:
 - a. Test Report: Electronic copy of lab reports including name and contact information of certified lab.
 - b. Manufacturer's Installation Guidelines

- B. Closeout Submittals, submit following items:
1. Maintenance instructions
2. Special Warranties for use in Owner’s manual.

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1.03 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Manufacturer Qualifications:
 - a. Minimum 10 years experience in manufacturing and distributing bamboo flooring.
 - 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. (use only if necessary)
- 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, 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. Discuss 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 not less than 5 days prior to start of installation. Distribute unopened boxes evenly to ensure all boxes acclimate to job site temperature. Do not open boxes prior to installation. Floor packaging should only be opened once installation is ready to begin.
- B. Store flooring materials in conditioned space at all times, and do not allow to freeze or get wet.

1.05 PROJECT/SITE CONDITIONS

RADIANT HEAT NOTE: SELECT "5 DAYS" IN FOLLOWING PARAGRAPH IF FLOORING IS TO BE INSTALLED OVER A RADIANT HEAT SYSTEM; OTHERWISE, SELECT "72 HOURS."

- A. Environmental Requirements: All installation spaces, flooring and adhesive must be maintained at normal occupancy temperature and humidity levels for a minimum of [72 hours] [5 days] prior to and continuously following installation. HVAC systems must be operational and controlling site temperature and humidity.

1.06 WARRANTY

- A. Warranty for Prefinished Teragren® *Synergy™ Wide Plank* Bamboo Flooring:
 - 1. Teragren® Structural Warranty: Lifetime against de-lamination, separation, buckling or cupping as a result of a manufacturing defect. Please see www.teragren.com for current product warranty.

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2. Teragren® Commercial Finish Warranty: 10 year heavy-use warranty against wear through or separation from the flooring as a result of a manufacturing defect. Please see www.teragren.com for current product warranty.

USE ABOVE FINISH WARRANTY FOR COMMERCIAL PROJECTS. USE FOLLOWING FINISH WARRANTY FOR RESIDENTIAL PROJECTS.

3. Teragren® Residential Finish Warranty: 25 years against wear through or separation from the flooring as a result of a manufacturing defect. Please see www.teragren.com for current product warranty.

PART 2 - PRODUCTS

2.01 MANUFACTURER

A. Teragren LLC	Tel: (800) 929-6333
12715 Miller Road NE, Suite 301	Fax: (206) 842-9456
Bainbridge Island, WA 98110	e-mail: info@teragren.com
	Website: http://www.teragren.com

INSERT NAME, ADDRESS AND PHONE NUMBERS OF LOCAL DISTRIBUTOR/DEALER BELOW.

1. Distributor/Dealer:

B. Engineered Bamboo Flooring Strand Type:

1. Strand Grain with cross-ply engineered construction: Top layer 5/32" Synergy™ strand bamboo with Xcora™ technology laminated together with square edges exposed on a U.S. and International patents pending 100% bamboo cross-ply core and bamboo backing designed to work with the Välinge-patented glueless, self-locking system.
 - a. Color: [Wheat] [Chestnut] [Brindle] [Java]

C. Substitutions: None Permitted.

2.02 MATERIALS

A. Bamboo Flooring:

1. Species: Moso Bamboo (*Phyllostachys Pubescens*).
2. Top Layer 5/32" strand bamboo
3. 100% Bamboo cross-ply core and bamboo backing (U.S. and International patents pending)
4. Bamboo Harvest: Bamboo harvested between 5-1/2 to 6 years to ensure color clarity, hardness and stability of fiber.
5. Size: 7-11/16 inches (195 mm) wide by 9/16 inch (14 mm) thick by 75 inches (1905 mm) in length.

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6. Edges and Ends: Square edges.
7. Välinge–patented glueless, self locking system.
8. Chemical Treatment: Natural borate solution and hydrogen peroxide to eliminate pests and mildew applied to raw bamboo materials prior to manufacturing at time of manufacture. Note: Treatment is only applied to Flat Natural (FGN) and Vertical Natural (VGN) traditional bamboo.
9. Finish: Seven-coat, 100 percent solids, non off-gassing, water-based system with aluminum oxide including two top coats of scratch-resistant polyurethane.

B. Physical Property Performance Requirements:

1. Hardness: ASTM D 1037, Janka Ball: Wheat 3,438; Chestnut 3,428; Brindle 2,731; Java 3,489 (Represents 4mm Synergy™ wear surface.)
2. Dimensional Stability: 50% RH to 80% RH
ASTM D 1037: Dimensional change coefficient:
0.001 parallel / 0.0032 perpendicular / 0.0074 thickness.
3. Slip Resistance: ASTM D2394, Coefficient of Friction Average; Static 0.592; Sliding 0.62.
4. Abrasion Resistance: ASTM D 4060, CS-17 Taber abrasive wheels: Final wear-through: Minimum 27,500 cycles.
5. Moisture Content: ASTM D 4442, Oven Dry Method: 6-8 percent average.
6. Formaldehyde Emissions: ASTM E 1333: 0.021 ppm maximum average.
7. Thermal Resistance: ASTM C 518-04: R value of 0.49.

C. Optimal Sub-Floors

1. 1 1/8 inch plywood over joists at 16 inches on center
2. 5/8 inch CDX plywood for 12 inch on center and 16 inch on center floors
3. 3/4 inch CDX plywood for 24 inch on center floors

D. Suitable Pre-Existing Sub-Floors

1. Concrete
2. Particleboard
3. Wood Floors
4. Tile
 - a. ceramic
 - b. vinyl

(A 5/64" – 1/8" underlayment approved for floating floors must be used between the sub-floor and the flooring.)

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2.03 ACCESSORIES

- A. Stair Treads: 11-1/2 inches (292.1 mm) wide by 1-1/16 inches (26.98 mm) thick in 72 inch (1828.8 mm) [_____ inches (_____ mm) wide by _____ inches (_____ mm) thick by [_____ inches (_____ mm) long]. Match flooring grain, color, and finish.
- B. Stair Riser: 7-1/2 inches (190.5 mm) wide by 5/8 inch (15.87 mm) thick in 72 inch (1828.8 mm) lengths [_____ inches (_____ mm) wide by _____ inches (_____ mm) thick by [_____ inches (_____ mm) long]. Match flooring grain, color, and finish.
- C. Floating Stair Nosing: 4-1/8 inches (104.77 mm) wide by 1-3/8 inches (34.92 mm) thick [_____ inches (_____ mm) wide by _____ inches (_____ mm) thick]. Match flooring grain, color, and finish. Note: available only in 72” length.

IF TRANSITION STRIPS TO OTHER FLOORING MATERIALS ARE REQUIRED, VERIFY WHICH FLOORING INSTALLER SHOULD PROVIDE THE TRANSITIONS AND INCLUDE BELOW OR IN ANOTHER SECTION AS APPROPRIATE.

- D. Floating Floor Reducer: 2-1/2 inches (63.5 mm) wide by 3/4 inch (19.05 mm) thick [_____ inches (_____ mm) wide by _____ inches (_____ mm) thick]. Match flooring grain, color, and finish. Note: available only in 72” length.
- E. T-Mold: 2 inches (50.8 mm) wide by 7/8 inch (22.22 mm) thick [_____ inches (_____ mm) wide by _____ inches (_____ mm) thick]. Match flooring grain, color, and finish. Note: available only in 72” length.
- F. Baby Threshold: [2 inches (50.8 mm) wide by 15/16 inch (23.81 mm) thick] [_____ inches (_____ mm) wide by _____ inches (_____ mm) thick]. Match flooring grain, color, and finish. Note: available only in 72” length.
- G. Base Shoe: 3/4 inch (19.05 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.
- H. Base Molding: 3-1/2 high (88.9 mm) 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.

FLOOR VENTS ARE AVAILABLE IN SEVERAL STANDARD SIZES AND CUSTOM SIZES. VERIFY THAT APPROPRIATE VENTS ARE NOTED ON THE DRAWINGS .

- J. Floor Vent: Size and type as shown on Drawings.

INCLUDE ADDITIONAL ACCESSORIES SUCH AS METAL OR WOOD FEATURE STRIPS IF USED IN THE PROJECT.

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PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates upon which flooring will be installed.
 - 1. Verify that subfloor is clean, dry, and free of contaminants 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 m²) 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 Record Drawings.

Teragren strongly recommends the use of a moisture barrier underneath this product unless the subfloor can be guaranteed, in perpetuity, to not emit moisture vapor in excess of 3 lbs per 1,000sq. ft. (15g per m²) within a 24 hour period.

- B. Verify that HVAC system is operating properly and maintaining proper occupancy level temperature and humidity conditions.
- C. Coordinate with responsible entity to correct unsatisfactory conditions.
- D. Commencement of work by installer is an acceptance of suitable substrate conditions.
- E. Prior to installation, the installer shall examine all material and determine that it matches the work order.

3.02 PREPARATION

- A. Synergy™ Strand Bamboo Floating Floor is **not** to be opened prior to installation. Packaging should only be opened when installation is ready to begin.
- B. Grind and or fill subfloor using methods and materials appropriate to the subfloor construction to eliminate humps and depressions. For best results neither humps nor depressions shall exceed 1/8 of an inch (3 mm) within a 6 foot (1830 mm) radius or 3/16 of an inch (4.7 mm) within a 10ft (3048 mm) radius.
- C. Because bamboo is a natural fiber, variations in color naturally occur. Each box should be inspected for differences in color with color variance staggered throughout the floor.

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3.03 INSTALLATION

MANUFACTURER'S INSTALLATION GUIDELINES ARE ADEQUATE FOR NORMAL INSTALLATION CONDITIONS. UNUSUAL
CONDITIONS MAY REQUIRE ADDITIONAL INFORMATION IN THIS ARTICLE.

- A. Teragren® Synergy™ Strand Bamboo Floating Floor: Install in accordance with manufacturer's installation guidelines.
- B. Install flooring planks by [floating floor method]. Synergy™ Strand Bamboo Floating Floor is suitable for installation as a floating floor system on, above and below 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.
- E. Accommodate thermal expansion. Install transitions, trims and base molding, as identified in manufacturer's installation guidelines and as required to accommodate site conditions.

3.04 CLEANING

- A. Remove all debris left from flooring installation; vacuum and leave flooring in clean, debris-free condition.

3.05 PROTECTION

- A. Cover installed flooring with heavy Kraft-paper or other suitable covering. Do not use non-breathable sheet or film that could cause condensation to form. Maintain covering throughout remainder of construction period.

END OF SECTION¹

¹ This specification was prepared by Teragren LLC. Comments or suggestions for improvement should be addressed to: Teragren, 12715 Miller Road NE, Suite 301, Bainbridge Island, WA 98110, 1-800-929-6333, www.teragren.com, Email: info@teragren.com
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