



FINE BAMBOO FLOORING, PANELS & WORKTOPS

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PREFINISHED STRAND BAMBOO WIDE PLANK FLOORING
With Xcora™ Technology
and Välinge-Patented 2G Fold-Down Glueless
Installation System

PORTFOLIO COLORS COLLECTION



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.FRCI.COM
CERT # SCS-FS-01878

MF '04 SECTION 096400
DOC:MPLS 04 23 12

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

Teragren LLC
Portfolio Colors Collection - Strand Bamboo Wide Plank Flooring
With Välinge-Patented 2G Fold-Down Glueless Installation System

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has made every reasonable effort to ensure the accuracy of the information provided in this document but we are not responsible for
typographical errors and omissions.

- A. Section Includes: Prefinished solid 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.]

 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.

- A. 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) (if required for LEED submittal)
 - e. [FloorScore®](#) certification #SCS-FS-08178: 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.
 - i. FSC-Chain-of-Custody factory certification #SCS-COC-002912
 - 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 to 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 and flooring 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® Portfolio Bamboo Flooring:
 - 1. Teragren® Structural Warranty: Lifetime against delamination, separation, buckling or cupping as a result of a manufacturing defect. Please see www.teragren.com for current product warranty.
 - 2. Teragren® Commercial Finish Warranty: 10 year heavy-use commercial 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.

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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. Bamboo Flooring Strand Type:

1. Bamboo strand composite in a pressure treated adhesive base to form a high density homogenous bamboo plank using Xcora™ technology and the Välinge-patented 2G fold-down glueless, self-locking system.
 - a. Color: [New Country] [Honey Ridge] [High Tea] [Rich Cognac] [Brown Sugar] [Darby Brown] [Midnight Black] [Paris Black] [Hewn Port] [Hewn Tawny].

C. Substitutions: None Permitted.

2.02 MATERIALS

A. Strand Bamboo Flooring:

1. Species: Moso Bamboo (*Phyllostachys Pubescens*).
2. Manufactured using Xcora™ Technology
3. Size: 5 inches (126 mm) wide by 1/2 inch (12 mm) thick by 72 inches (1840 mm) in length.
4. Back: Channeled and sealed with factory-finish seal coat.
5. Finish: Nine-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: Minimum Average 3,271.
2. Dimensional Stability: ASTM D 1037: Dimensional change coefficients: 0.0008 parallel / 0.008 perpendicular / N/A thickness.
3. Slip Resistance: Coefficient of Friction: ASTM D2394; Static 0.592 Sliding 0.62
4. Flammability:
 - a. GB/T 8624-1997: Class B1

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- b. ASTM E 648: Class I Interior Floor Finish rating per NFPA 101.
 - c. Smoke Density: ASTM E 622: Maximum 341 in flaming mode; 191 in non-flaming mode.
5. Compressive Strength: ASTM D 3501: Minimum 14,080 psi (96 MPa).
 6. Abrasion Resistance: ASTM D 4060, CS-17 Taber abrasive wheels: Final wear-through: Minimum 27,500 cycles.
 7. Moisture Content: ASTM D 4442, Oven Dry Method: 6-8 percent, average.
 8. Formaldehyde Emissions: ASTM E 1333: 0.01 ppm.
 9. Thermal Resistance: ASTM C 518-04: R value of 0.53.

B. 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

(Floating floor approved underlayment or cork not exceeding 5/64" in thickness may be used between the sub-floor and the flooring.)

2.03 ACCESSORIES

- A. Stair Treads: 11-1/2 inches (292.1 mm) wide by 1-1/16 inches (26.98 mm) thick in 48 inch (1219.2 mm) lengths only [_____ inches (_____ mm) wide by _____ inches (_____ mm) thick]. 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 48 inch (1219.2 mm) lengths only [_____ inches (_____ mm) wide by _____ inches (_____ mm) thick]. Match flooring grain, color, and finish.
- C. Stair Nosing: [4-1/8 inches (105 mm) wide by 1-3/8 inches (35 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 mm) wide by 5/8 inch (15.87 mm) thick] [_____ inches (_____ mm) wide by _____ inches (_____ mm) thick]. Match flooring grain, color, and finish. Note: available only in 72" length.

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- E. T-Mold: [2 inches (50.8 mm) wide by 7/8 inch (22.22 mm) thick] [_____ inches (_____ mm) wide]. Match flooring grain, color, and finish. Note: available only in 72” length.
- F. 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.
- G. Base Molding: [5-1/2 inches (142 mm) high by 5/6 inch (16 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. Match Flooring color and Finish.

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

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 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 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 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.

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3.02 PREPARATION

- A. Portfolio Strand Bamboo Flooring 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.

3.03 INSTALLATION

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

- A. Teragren® Portfolio Strand Bamboo Flooring: Install in accordance with manufacturer's installation guidelines.
- B. Install flooring planks by [floating floor method]. Portfolio 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 a 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, 800-929-6333, www.teragren.com Email: info@teragren.com
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