

Important Product Line Notes:

- Check Teragren.com for the latest updates to our Installation Guidelines
- Teragren PureForm™ Traditional Bamboo Flooring is suitable for installation as a glue, nail, or staple-down system on or above grade. Use only adhesives certified by their manufacturer for use with Bamboo.
- Flooring must be delivered to the job site a minimum of 48 hours prior to installation. Do not deliver or install flooring until the building has been enclosed with windows and doors, and all cement, plastering, and other “wet” work has been completed.
- Handle and unload flooring with care. Store in a dry place with at least a four-inch air space under cartons. Do not store boxes on uncovered concrete or other cementitious materials.
- The use of vapor barriers (over cementitious subfloors) or vapor retarders (over wood subfloors) is mandatory.
- Install into environments with HVAC systems able to consistently maintain 35-55% Relative Humidity at 60-80° Fahrenheit.
- Ensure flooring is installed in such a manner to allow for up to ½” expansion or ½” contraction around walls or any other fixed object.
- Bamboo Flooring may be installed over radiant floor heating systems (see “Radiant Floors” section below). Surface Temperature of flooring must never exceed 85° F.
- Installer to document installation date, product run code (off box ends), flooring moisture content, site relative humidity, site temperature, and subfloor moisture content. This information must be retained by the installer and left with the property owner as a permanent record.

Pre-Installation Notes:

Please read Teragren LLC’s warranty, maintenance instructions, and ALL of the following guidelines before opening any packaging or beginning your flooring installation. All information within this document is provided as a courtesy to our customers and is meant to be understood as an installation guideline only. The customer and/or the installer is solely responsible for any and all decisions regarding how, where, and when to install any Teragren product.

Teragren LLC recommends using the services of a professional hardwood flooring installer. For more information and for guidelines on the installation of hardwood flooring, please contact the National Wood Flooring Association or review their website <http://www.woodfloors.org>.

Because bamboo is a natural fiber, it is not uncommon for natural variations in color to occur within and between individual flooring planks. Teragren’s warranty does not cover variations in color either in individual planks, between the planks, or the variations in color between our product samples and the installed flooring. An industry standard of 5% material overage should be added to the actual square footage required for cutting and grading allowances.

Prior to installation, all material must be inspected to ensure the material received matches the work order. Any visible defects or discrepancies must immediately be reported to your distributor or dealer. It is considered the installer/owner’s responsibility not to install flooring having finish, manufacturing, or unacceptable material variations. Individual planks with defects must not be installed or the defect must be cut-out prior to installation. Filler or putty stick may be used to correct minor flooring defects during installation. The Teragren warranty does not cover materials with visible defects once they are installed.

It is the sole responsibility of the installer/owner to determine if the job site’s sub-floor and environmental conditions are suitable for the installation of Teragren flooring and accessories. Teragren LLC makes no warranty or guarantee of the quality of the chosen installer’s work or of a particular installation performed by the installer. Teragren LLC disclaims all liability for any errors or improprieties in the installation of its products. Installation of any Teragren product serves as acceptance of that material.

Product Acclimation:

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Teragren bamboo flooring must be installed over a vapor barrier or vapor retarder into environments with HVAC systems able to consistently maintain 35-55% Relative Humidity at 60-80° Fahrenheit. Climate conditions (RH Conditions) outside of the recommended range will cause the moisture of the flooring to decrease or increase and may cause excessive shrinking, swelling, checking, cupping, buckling, or other unintended dimensional change. For proper acclimation, flooring must be delivered to the job site a minimum of 48 hours prior to installation. Evenly distribute unopened boxes in a dry space leaving at least a four-inch air space under the cartons to ensure all boxes can acclimate to job site temperature. Do not store boxes on uncovered concrete or other cementitious materials.

Installation Method(s):

Bamboo Flooring must be installed into a relative humidity controlled environment over a vapor barrier or vapor retarder per the following specifications:

- **Concrete Subfloors:** Use an appropriate liquid or trowel-applied vapor barrier membrane/adhesive system. Impermeable vapor barrier systems with a perm rating less than or equal to .13 are suggested.
- **Wood Subfloors:** Use a UU-B-790a, Grade B, Type 1, Style 1a permeable vapor retarder or equivalent with a perm rating between .7 and 1

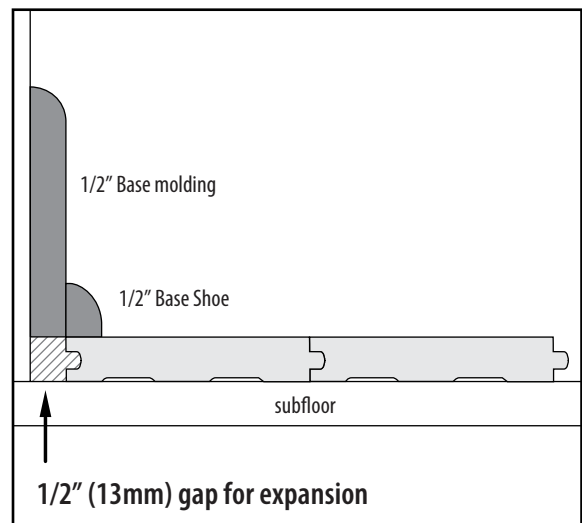
NOTE: Flooring must be installed in such a manner to allow for up to ½" expansion and ½" contraction of your installed flooring.

Bamboo, like all hardwoods, expands and contracts as its moisture content rises and falls.

Use a combination of wall moldings such as a base-molding and base-shoe together to ensure that the edge of the installed flooring does not strike the wall if it expands and does not show if the flooring shrinks.

Teragren bamboo flooring is best installed by the following methods:

- **Above or on grade:** Flooring may be installed by nailing, stapling, or gluing planks directly to a wooden or concrete subfloor. Note: Do not nail or staple planks to a concrete subfloor.
- **Below grade:** Teragren does NOT recommend installing this product below grade.



Tools Recommended (not all tools may be required):

Nail or Staple Installation: Hammer (1 lb), tape measure, chalk line, carpenter square, scribing block, flat bar, 1/2" wedges, saw, chop saw, manual or pneumatic tongue & groove flooring stapler or nailer, 1½"-2" (38-58mm) long 15 ½ gauge 1/2" crown staples or equivalent, or for the nailer 1½"-2" (38-58mm) 15 ½ gauge cleats, vapor retarder (wooden subfloor)

Glue Down Installation: Hammer (1 lb), tape measure, chalk line, pencil, carpenter square, scribing block, flat bar, 1/2" wedges, saw, chop saw, premium wood flooring adhesive, low adhesive painter's tape, vapor barrier (concrete subfloor) or vapor retarder (wooden subfloor)

Sub-Floor Examination and Preparation:

A vapor barrier such as 6 mil polyethylene film must be placed in crawl spaces. Wood sub-flooring surfaces must have no flex and must be smooth, level, clean, dry, and free of contaminants. Fix any squeaks or movement in the sub-floor prior to flooring installation. The sub-floor surface must be level and smooth prior to flooring installation. Subfloors must be checked for flatness prior to installation and any low spots or voids must be filled to a minimum of 3/16" (4.76mm) within a 10' (3 meter) radius or 1/8" (3mm) in a 6' (1.8 meter) radius, and high spots ground to surface.

Acceptable sub-floor specifications include 5/8" (16mm) T&G CD Exposure 1 plywood for 12" (30.5cm) and 16" (41cm) on center

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floors (OC), 3/4" (19mm) T&G CD Exposure 1 plywood for 16" (40.6cm) to 19" (48.3cm) OC floors, and 7/8" (22mm) T&G CD Exposure 1 plywood for 24" (61cm) OC floors. A sub-floor of 1-1/8" (28.5mm) plywood over joists at 16" (40.6cm) on center is recommended for an optimal installation. Note: the use of particleboard may result in a substandard subfloor due to the lack of rigidity.

Concrete sub-floors MUST be tested for moisture in more than one place for consistent readings. Teragren recommends using a Calcium Chloride Test Method to quantify the volume of moisture vapor radiating from a concrete slab surface over time and / or a Relative Humidity Probe test to quantify the amount of relative humidity within the slab. The use of a Vapor Barrier (over cementitious materials) or a Vapor Retarder (over wood) is mandatory.

Note: Depending on the geographical area and interior climate control systems of the installation environment, to minimize expansion of nailed or glued-down floors that are wider than 20', installers may need to build-in additional spacing between planks and at the edge of rooms. Where additional spacing is required, use a removable spacer between every few rows of planks.

Nail or Staple-Down Installations:

Install a vapor retarder. Installed flooring should be square with the space and perpendicular to the joists, leaving a 1/2" (12mm) expansion space from base plate or wall. Starter rows should be held firmly in place by wedging or blind nailing. Once starter rows are secure, additional rows should be blind nailed directly above the tongue at a 45-50 degree angle to the face of each plank. Fasteners should be spaced at 6-8 inch intervals per plank. Fasteners should not be placed closer than 6" (15cm) from the end of planks to prevent splitting of the tongue. When choosing a nail/staple gun, be certain the model is appropriate for the tongue & groove profiles so as not to damage the edge or surface of the flooring.

The selection and use of any nailer is at the sole discretion and responsibility of the owner/installer. For a list of nailers tested by their manufacturer(s) as being compatible with Teragren flooring products, please visit http://www.teragren.com/downloads/Teragren_Nailer_Guidelines.pdf.

Glue-Down Installations

Install vapor barrier or vapor retarder. Teragren recommends the use of a low-VOC, premium, water-free flooring adhesive and/or vapor barrier system specifically recommended by the adhesive manufacturer for use with bamboo flooring. Note: Always use a vapor barrier and adhesive system manufactured by the same company – never mix products.

The sub-floor must be extremely flat (see adhesive manufacturer's specifications), be square with the space, and run perpendicular to the joists. Leave a 1/2" expansion space from base plate or wall. Starter rows should be held firmly in place using wedges. Once the starter rows are secure, apply the adhesive per the manufacturers' installation instructions. NOTE: Always remove any adhesive from the surface of the flooring (smudges, fingerprints, etc.) before it dries. Clean up as you go – do not wait until the installation is complete. Cured adhesives are very difficult to remove and may permanently damage flooring. **Always follow the adhesive manufacturer's installation instructions.**

For a list of adhesives warranted by their manufacturer(s) as being compatible with Teragren flooring products, please visit http://www.teragren.com/downloads/Teragren_Adhesive_Guidelines.pdf.

It is up to the owner/installer to confirm the warranty, the environmental statements of the manufacturer, and the suitability of any adhesive for the intended end-use. The selection and use of any adhesive / moisture control system is at the sole discretion and responsibility of the owner/installer.

Radiant Heat:

Teragren floors are suitable for installation over radiant heating systems. When choosing an installer for application over radiant heat, look for members of the Radiant Panel Association. Please refer to www.radiantpanelassociation.org for more information on radiant heat systems.

Rugs placed on a floor heated by a radiant source can increase the surface temperature of that floor by 2-3 degrees Fahrenheit. If using an adhesive to "glue-down" bamboo flooring, please confirm with the adhesive manufacturer the suitability of the adhesive

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for use with radiant heating systems. Before installing the flooring, activate the radiant heating system and leave it on for at least 21 days prior to installation. Radiant heating systems must be turned off 24 hours prior to and during flooring installation. If no adhesive has been used, the radiant heating system may be reactivated after the flooring installation is complete. If adhesive has been used, follow the adhesive manufacturer's guidelines regarding adhesive cure time before reactivating the radiant heating system. Please refer to www.radiantpanelassociation.org for more information.

It is up to the owner/installer to confirm the suitability of any radiant-heating system for the intended end-use. The selection and use of any radiant heating system is at the sole discretion and responsibility of the owner/installer.

Maintenance Guidelines:

Teragren recommends vacuuming or sweeping in order to remove dirt and grit prior to cleaning the flooring. Remove any liquid spills promptly. Exposure to the sun and ultra-violet light can accelerate oxidation (color- change). Periodically rearrange rugs and furniture to allow for consistent aging of the flooring. Use area rugs in high traffic areas. Install wood guards on the feet or legs of furniture.

Do not use wax, oil soap or other household cleaners. Teragren recommends using either *WoodWise Floor Cleaner* by [Design Hardwood Products](#) (800.424.7092), or *Bona Swedish Formula® MicroPlus Hardwood Floor Cleaner* by [BonaKemi](#) USA, Inc. (800.574.4674).

Proper care and maintenance can extend the life of your floor for many years; however, at some time a re-coat or total refinishing may be desirable. To re-coat your floor and remain in conformance with the Teragren warranty, follow the manufacturer's instructions at either of the following:

[Basic Coatings](#) *Tykote Sandless Re-coating System* (800.441.1934) or *BonaPrep™ Re-coating Adhesion System* by [BonaKemi](#) USA (800.872.5515).

Contact your Teragren distributor or retailer for more information or [email tech support](#).