INSTALLATION

Installation Guide

READ COMPLETELY BEFORE STARTING INSTALLATION.

If you take care to install this flooring correctly, taking all precautions suggested in this guideline, Your Yanchi floor will give you many years of satisfaction. While it is not necessary to use a professional to install this flooring, a professional can advise you of existing or past conditions that may affect the long term performance of the flooring. This is only a guide and cannot supply all the details you may encounter regarding the installation. Yanchi cannot be responsible for the installation under any circumstances. Please remember it is the responsibility of the person installing the floor to determine the suitability of the application, materials, and conditions before beginning the installation.

PRE-INSTALLATION JOBSITE REQUIREMENTS

Carefully examine the flooring prior to installation for grade, color, finish and quality. Ensure adequate lighting for proper inspection. If flooring is not acceptable, contact your distributor immediately to arrange for replacement. Manufacturer cannot accept responsibility for flooring installed with visible defects. Prior to installation of any flooring, the installer must ensure that the jobsite and subfloor meet the requirements of these instructions. Manufacturer is not responsible for flooring failure resulting from unsatisfactory jobsite and/or subfloor conditions.

Flooring should be one of the last items installed in any new construction or remodel project. All work involving water or moisture should be completed before flooring installation, including painting as this will create an artificially high humidity level in the room. Installing onto a wet subfloor may cause permanent damage to the flooring.

Permanent HVAC should be on and operational and maintained between 60-75°F with relative humidity of 30%-60% for a minimum of 14 days prior to delivery, as well as during and after installation of the flooring. When installing over radiant heat, additional restrictions apply – see below.

Acclimation of Yanchi Engineered 9/16” Strandwoven Bamboo flooring should be done with the boxes completely opened or removed from packaging for 5 days, within the space and conditions it will be used. Open the boxes carefully to avoid damaging them in case repackaging is necessary for a return. Do not store directly on concrete or near outside walls. Yanchi 9/16” Engineered Strandwoven Bamboo should be within 2% of the moisture content of a wood subfloor. Concrete subfloors should be sealed, or covered, to retard vapor emissions. The HVAC system should be operating normally throughout the acclimation period, and portions of the flooring should be distributed to acclimate in the actual rooms where it will be installed. Failure to acclimate properly may result in shrinkage or expansion, cupping or buckling.

PLEASE NOTE: Due to the extreme density and resin content, acclimation will progress more slowly with Strandwoven Bamboo than with traditional hardwoods. In very dry or very humid climates, proper acclimation may take several weeks and opening the boxes more fully will help the acclimation process. Refer to the NWFA climate zone map for references specific to your area. Acclimation is relative to humidity and moisture, and is not necessarily related to a specific timeframe.

When checking the moisture content of Yanchi Engineered Strandwoven Bamboo, pin-type moisture meters give misleading readings because the resin content of the material inhibits electrical conductivity. Non-intrusive surface meters tend to give more accurate readings than pin-type meters. All moisture meters must be adjusted to specific settings for different species. For Yanchi Engineered Strandwoven Bamboo, use the setting for Ipe (Brazilian Walnut). Using the standard settings for Douglas Fir or Red Oak will give inaccurate readings and could result in flooring being installed when it is not yet properly acclimated. If the literature provided with your moisture meter does not list a setting for Ipe (Brazilian Walnut), contact the meter manufacturer to determine the correct setting.

This flooring is suitable for installation over some radiant heat subfloor systems using the glue-down or floating method only. Please carefully read the “Radiant Heat” section below before finalizing product selections.

PRE-INSTALLATION SUBFLOOR REQUIREMENTS

Acceptable subfloor types:

- Acceptable Panel Subfloors: Truss/joist spacing will determine the minimum acceptable thickness of the panel subflooring:

On truss/joist spacing of 16” (406mm) o/c or less, the industry standard for single-panel subflooring is minimum 1 5/8” (19/32”, 15.1mm) CD Exposure 1 Plywood subfloor panels (CD Exposure 1) or 23/32 OSB Exposure 1 subfloor panels, 4’ x 8’ sheets.

On truss/joist spacing of more than 16”, up to 19.2” (488mm) o/c, the standard is minimum ¾” (23/32”, 18.3mm) T&G CD Exposure 1 Plywood subfloor panels, (Exposure 1), 4’ x 8’ sheets, glued and mechanically fastened, or minimum ¾” (23/32”, 18.3mm) OSB Exposure 1 subfloor panels, 4’ x 8’ sheets, glued and mechanically fastened. When possible, check the back of the subfloor panel for American Plywood Association (APA) rating.

Truss/joist systems spaced over more than 19.2” (488mm) o/c up to a maximum of 24” (610mm) require minimum 7/8” T&G CD Exposure 1 Plywood subfloor panels, (Exposure 1), 4’ x 8’ sheets, glued and mechanically fastened, or nominal 1” OSB Exposure 1 subfloor panels, 4’ x 8’ sheets, glued and mechanically fastened – or two layers of subflooring. Or brace between truss/joists in accordance with the truss/joist manufacturer’s recommendations and with local building codes.

Some truss/joist systems cannot be cross-braced and still maintain stability.

- For double-layer subfloors, the first layer should consist of nominal ¾” (23/32”, 18.3mm) CD Exposure 1 Plywood subfloor panels (CDX), 4’ x 8’ sheets or nominal ¾” (23/32”, 18.3mm) OSB Exposure 1 subfloor panels, 4’ x 8’ sheets. The second layer should consist of nominal ½” (15/32”, 11.9mm) CD Exposure 1 plywood subfloor panels, (Exposure 1) 4’ x 8’ sheets. The ½” plywood should be offset by ½” panels in each direction to the existing subflooring. The panels may also be laid on a diagonal or perpendicular, with 1/8” spacing between sheets. Nail on a 12” minimum grid pattern, using ring-shanked nails or staples.

- Underlayment grade particleboard (minimum 40 lb. density) - glue-down only
- Concrete slab - A pre-installation concrete sealer is highly recommended to control vapor emissions
- Existing wood floor - must be smooth, level, well-adhered and, if gluing new flooring, unfinished
- Resilient tile & sheet vinyl - glue-down only; tile/vinyl must be new and non-urethane-coated
- Lightweight concrete (gypcrete) coated with latex primer - glue-down only (NOTE: Yanchi provides no guarantee that lightweight concrete will remain structurally sound during the life of the floor. Separation of the flooring from the subfloor caused by deterioration or fracturing of the substrate will not be considered a product failure.) All Subfloors must be:
- Dry and will remain dry year-round. Moisture content of wood sub floors must not exceed 12%, wood flooring moisture content must be within 2% of wood subfloor moisture content, and concrete must not exceed 3 lbs. per Calcium Chloride Test (test method ASTM 1869-89), or 2 lbs. when installing over radiant heat. • Structurally sound
- Clean: Thoroughly swept and free of all debris. For glue-down installations, subfloor must be free of wax, grease, paint, sealers, old adhesives, etc., which can be removed by sanding. • Level: Flat to 3/16” per 10-foot radius

Wood subfloors must be dry and well secured. Nail or screw every 6” along joists to avoid squeaking. If not level, sand down high spots and fill low spots with an underlayment patch. Concrete subfloors must be fully cured, at least 60 days old, and should have minimum 6-mil polyfilm between concrete and ground. If necessary grind high spots down and level low spots with a quality cementitious based leveling compound. Resilient tile and sheet vinyl must be well bonded to subfloor, in good condition, clean and level. Do not sand existing vinyl floors, as they may contain asbestos.

This Engineered flooring may be glued or floated over concrete that has been sealed against moisture vapor emissions. Even if the Calcium Chloride test results are below 3 lbs., we require the use of a sealer. Remember, a concrete slab on/below grade that measures dry today may become wet in the future due to rising groundwater or other changes to the surroundings.
Yanchi Flooring is not responsible for site related moisture issues.

INSTALLATION TOOLS

For all installation methods:

- Tape measure
- Wood or plastic spacers (1/2")
- Chalk line
- Tapping block
- Crosscut power saw
- Pry bar or pull bar
- Pencil
- Hammer

For nail-down installation, you will also need:

- Pneumatic nailer appropriate for 9/16" thick flooring and 1-1/4" or 1-1/2" long 18 gauge cleats. Examples of tools that have been used successfully with this flooring include the Powernail Model 50P cleat nailer. Always test the fastener to ensure that it is not damaging the flooring or causing dimpling before proceeding with installation.

NOTE: Fasteners larger than 18 gauge (i.e., 15 gauge) will damage this flooring.

- Air compressor
- Nail punch
- 15-lb. felt paper or equivalent, meeting ASTM D4869 standards

For floating installation, you will also need:

- QuietWalk Floating Floor Pad (www.quietwalk.com), or equivalent underlayment.
- 6-mil polyfilm (if installing on or below grade)
- Clear waterproof packing tape
- 3M 2080 Long Mask Blue Tape
- EuroBond® D3 Tongue and Groove Glue, or Franklin Titebond® II/III

GENERAL INSTRUCTIONS – ALL METHODS

Make sure subfloor is tested for moisture first and is properly prepared. Since Bamboo, like wood, expands with any increase in moisture content, always leave at least a 1/2" expansion space between flooring and all walls and any other permanent vertical objects, (such as pipes and cabinets). PLEASE NOTE: Bamboo expands and contracts along its length as well as its width, so it is critical to leave expansion space around the entire perimeter of the floor. This space will be covered up once you reapply base moldings around the room. Use wood or plastic spacers during installation to maintain this 1/2" expansion space.
No area of connected flooring can span greater than 25 feet in width or 50 feet in length without adding spacers or compensating for additional movement. For larger spans, install T-moldings or use spacers that will allow the flooring to expand and contract normally. More or less spacing may be needed depending on geographical area and specific site conditions. Before laying floor, install approved underlayment or adhesive as outlined below in the section specific to your chosen installation method.

Begin installation next to an outside wall. This is usually the straightest and best reference for establishing a straight working line. Establish this line by measuring an equal distance from the wall at both ends and snapping a chalk line. The distance you measure from the wall should be the width of a plank plus about 1/2" for expansion space. You may need to scribe cut the first row of planks to match the wall in order to make a straight working line, as most walls are not straight. Dry lay a few rows, (no glue or nails), before starting installation to confirm your layout decision and working line.

Work from several open boxes of flooring and “dry lay” the floor before permanently installing it. This will allow you to select the varying grains & colors and to arrange them in a pleasing pattern. The actual floor may differ in grain and color from the samples used in selecting the product and is not considered a defect. It is the installers’ responsibility to work with the end user to determine the expectations of what the finished floor will look like. If the range of color in the shipment does not appear satisfactory after opening a few boxes, do not begin installation. Contact your dealer immediately to arrange a return.

When laying flooring, stagger end joints from row to row by at least 8”. Avoid ‘H’ patterns, where planks just two rows away from each other end in the same location, by starting each row with a plank cut to a random length. When cutting the last plank in a row to fit, you can use the cut-off end to begin the next row. If cut-off end is 8” or less, discard it and instead cut a new plank at a random length (greater than 8”) and use it to start the next row. Always begin each row from the same side of the room.

Start with the groove edge facing the wall. To draw planks together, always use a tapping block, as tapping the flooring itself will result in edge damage. Never apply pressure to the groove edge of the flooring – only use the tapping block against the tongue. When near a wall, you can use a pry bar or pull bar to pry close the side and end joints. Take care not to damage edge of flooring.

After installing three rows, recheck your spacers to ensure that the proper ½” expansion space is being maintained. When you reach the last row, remember to leave ½” expansion space between the flooring and any vertical surface such as pipes or cabinets.

GLUE DOWN INSTALLATION

Yanchi recommends using a premium, water-free, low-VOC moisture cure urethane adhesive, along with appropriate sealers and levelers. Yanchi does not guarantee or warrant the performance of third party installation products, and specific questions about their use should be directed to their manufacturer.
Carefully review installation instructions for subfloor preparation, proper trowel size, required temperature/humidity conditions, and the adhesive open/set time before beginning installation. Working properties, compatibility with sealers, and set times may vary between brands so it’s important to follow the label instructions specific to your brand (not all adhesive and sealers are cross-compatible).

Trowel adhesive onto a section of subfloor that can be covered with flooring within the working time recommended by the adhesive manufacturer. Lay the first row of flooring into the adhesive with tongue facing the wall, and continue laying floor as described above under “General Instructions-All Methods”. Always check your working lines to maintain alignment. Use spacers to help ensure the installed flooring does not move on the wet adhesive. 3M 2080 Long Mask Blue tape may be used across rows to hold planks tight while the adhesive sets (do not leave this tape on the floor more than 1 hour, do not apply to flooring that has been cleaned with solvents or mineral spirits, and remove tape before cleaning with any type of liquid).
Periodically lift a plank from the wet adhesive to ensure full transfer to at least 90% of the planks.

When first section is finished, continue to spread adhesive and lay flooring section by section until installation is complete. USE A CLEAN, DRY CLOTH TO IMMEDIATLEY REMOVE ANY ADHESIVE FROM THE FLOORING SURFACE. If adhesive cannot be completely removed with a dry cloth, use mineral spirits. Never let flooring adhesive dry completely on the finished surface.

Within the adhesive working time, walk each section of flooring to make sure it is well bonded to subfloor. Flooring planks on the perimeter of the room may require weight on them until the adhesive cures enough to hold them down. Roll the floor with a 100lb roller every 2-3 hours during and immediately after installation, or as directed by the adhesive manufacturer.

NAIL DOWN INSTALLATION

Make sure subfloor is tested for moisture content first and is properly prepared. Prior to installation, lay 15-lb. asphalt roofing felt or equivalent, meeting ASTM D4869 standards, over the entire subfloor, following the manufacturer's instructions.

Use a cleat type fastener of your choice that is appropriate for 9/16" thick flooring and test to make sure that nailing will not cause dimpling (localized raised edges) in the finished floor. Note: be sure to look at the face of the installed flooring at a low angle from a distance to see if dimpling is occurring, as it is hard to see when directly above the floor. If you see dimpling, STOP and adjust the fastener shoe, the angle and placement of cleat entry, or air pressure until test planks confirm that dimpling is no longer occurring. Yanchi Flooring is not responsible for replacing material that has been installed with dimples.

The correct air pressure needed to install this flooring will vary with subfloor type, but generally ranges between 55 and 95 psi.

Regardless of air pressure, fasteners larger than 18 gauge (i.e., 15 gauge) will damage this flooring and void the warranty. Whenever surface nailing Strandwoven Bamboo flooring or molding is necessary, drill a pilot hole for the nail that allows it to countersink.

For the first and second starting rows: lay first plank inside chalk line with groove edge toward the wall. Since it can be difficult to get the nail gun in place next to the wall, you may choose to glue down the first rows rather than face-nailing them and leaving unsightly nail holes that must be filled with putty. Make sure the starting rows are straight and drawn tight. After gluing down these rows with Bostik Best Urethane Adhesive available in tube or a similar product, set weight on top of them and allow them to set securely before continuing to nail the additional rows.

Subsequent rows: Lay by using floor nailer to blind-nail top inside edge of tongue at a 45 degree angle. Nail each board every 68" and 3-4" from each end (to prevent splitting). Remember to stagger end joints from row to row at least 8" apart and use a tapping block to fit boards together. Periodically check (looking from a low angle) to make sure that the nail is still not causing dimpling. It may be necessary to face-nail and or glue down the flooring in doorways or tight areas where the nailer can't fit. The last two rows will need to be face-nailed or glued in the same manner as the first two rows.

FLOATING INSTALLATION

Heavy objects such as counters, kitchen islands, and large stoves or refrigerators should be in place prior to the installation of a floating wood floor. Compressing a floating floor against the subfloor with excessive weight could inhibit the floor's ability to move in response to changes in humidity and may result in gapping or cupping.

Laying polyfilm: lay 6-mil Polyfilm with seams overlapped 8". Fasten seams every 18-24" with clear waterproof packing tape.

Run the outside edges of Polyfilm up perimeter of each wall 4". Trim after flooring installation is complete.

Laying pad: lay Floating Floor Pad underlayment by butting edges, not overlapping. Tape the full length of the seam with clear waterproof packing tape. Leave 1/2" space between pad and all walls and permanent vertical fixtures.

Installing the floor: start first row with groove toward wall. Glue end joints of first row by applying a small but continuous bead of Eurobond® D3 T&G Adhesive or Franklin® Titebond II/III PVAC glue to the bottom side of the groove. Lay subsequent rows of flooring by applying a continuous bead of glue to all side and end joints and fitting planks together with a tapping block. Clean up any adhesive that is on the face of the floor by using a dry cloth or Yanchi Spotless Glue Remover– DO NOT ALLOW

ADHESIVE TO DRY ON THE FLOORING SURFACE as it is difficult to remove without damaging the finish.

RADIANT HEAT

When installing Yanchi 9/16" Engineered Strandwoven Bamboo over radiant heat, the floating installation method is recommended, but glue-down installations are warranted provided that all of these instructions are carefully followed. Radiant Heating Systems must be designed and controlled specifically for hardwood flooring by the system manufacturer, and include an outside temperature probe and surface temperature controls. Flooring installed in multi-unit projects where the radiant system temperature is not regulated separately in each unit is not warranted.

Prior to installation over radiant heat moisture testing must be conducted and documented per ASTM 1869-89 (Calcium Chloride Test) or, for wood subfloors, using a pin type meter. The moisture content for concrete subfloors must not exceed 2.0 lbs. per 1000 square feet per ASTM 1869-89 (Calcium Chloride Test), and the moisture content for wood subfloors must not exceed 12%. If moisture levels exceed these limits, do not install the flooring.

The surface temperature of the subfloor must never exceed 82°F in any location. The temperature setting must always remain within 60-80°F, and should never be turned completely off. Excessive heat, rapid heating, and/or failure to maintain humidity levels between 30% and 60% are likely to cause cracking, cupping and other forms of floor failure.

Seasonal gapping and surface checking (cracking), particularly at the ends of planks, may occur in installations over radiant heat and do not constitute a product failure.

All concrete must be allowed to properly cure and dry for a minimum of 4 weeks prior to the operation of the radiant heat system. The system should then be operated to at least 2/3 maximum output for a minimum of 2 weeks prior to installation of flooring to allow moisture from the subfloor to dissipate and reach equilibrium. This procedure must be followed regardless of the time of year. Three (3) days prior to flooring installation, reduce thermostat to 65°F. In glue-down installations, the system should be turned off 24 hours prior to and during installation to prevent premature curing of the adhesive.

As always, relative humidity of the jobsite must be maintained between 30% and 60%. Use of a humidification/dehumidification system may be required to maintain the proper humidity levels, particularly over radiant heat.

Failure to maintain proper humidity levels will void all warranties.

Beginning 48 hours after installation, slowly raise the temperature of the heating system to its preferred operating level over a period of 5 days.

AFTER INSTALLATION

- Flooring should be one of the last items installed in a project. In order to protect the floors while other trades are finishing their work prior to final cleanup and turnover to the owner, use rosin paper and only use 3M® 2080 Blue Tape to hold the rosin paper to the floor (other blue tapes may damage the finish). Clean the floor thoroughly before laying the rosin paper to ensure that no debris is trapped underneath. DO NOT USE plastic film or other non-breathing coverings as this can cause the floor to become damaged from humidity buildups.
- Remove expansion spacers and reinstall base and/or quarter round moldings to cover the expansion space.
- Dust mop or vacuum the floor thoroughly to remove any dirt or debris.
- Buff the floor with lambs wool pads in order to remove any loose splinters, residues, footprints, etc.
- Install any transition pieces that may be needed (reducers, T-moldings, nosing, etc.).
- Place walk-off mats at all entrances to help collect dirt and debris that could damage or dull the flooring finish.
- Install felt floor protectors underneath all furniture.
- In areas such as bathrooms, kitchens, and spaces where food service occurs, top-coating the floor will help prevent against moisture damage. In heavy food service areas such as restaurants, two to three top-coats are recommended.