



BT Bamboo Installation Instructions

Please read the following instructions before starting the installation

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Applications

BT Bamboo is an overlay flooring system and can be installed on concrete, tiles, existing timber floors, plywood or particle board as long as the floor is structurally sound, clean, level and dry. BT Bamboo is recommended for internal use only, and should not be installed in wet areas like bathrooms or laundries or in external environments exposed to the elements.

BT Bamboo is solid bamboo flooring, tongue and grooved and end matched (900 x 90 x 15mm or 152 x 1830 x 15mm) and designed to be glued down or nailed down. The wide board (152 x 1830 x 15mm) can be floated on underlay.

Pre-Installation

Important: Please carefully inspect all material before installation. Any flooring installed with obvious defects will not be warranted. It is the responsibility of the installer/owner to determine that the job site conditions are suitable and environmentally acceptable for storage of BT Bamboo prior to installation as well as the commencement and completion of installation. Eco Flooring systems declines any responsibility for failure resulting from or connected with sub floor, sub surface, or job site damage, or deficiencies after flooring has been installed.

Pre-finished BT Bamboo should only be installed in the final stages of completion of a construction project with all trades people having left the site. All work involving water or moisture should be completed prior to installation (cement work, plastering, painting, plumbing, and tiling etc). Should this not be the case, installation should be delayed to avoid damage to the coating of the BT Bamboo.

The building should be roofed and enclosed with the temperature and humidity as close as possible to in-service conditions including the use of air conditioning. Flooring should be delivered at least 2-3 days prior to installation and stored internally. The boxes should be opened to allow the BT Bamboo flooring to adjust to normal room temperature and humidity. Avoid installing BT Bamboo in very damp or humid conditions. Air conditioning should be running at least 2 days before and during installation.(especially commercial fit outs)

Note: Eco Flooring Systems makes no warranty or guarantee of the quality of the chosen installer's work. Eco Flooring Systems disclaims all liability for any errors or improprieties in the installation of its product by an installer.

Sub Floor Preparation

BT Bamboo is a kiln dried product sensitive to changes in moisture content. It is vitally important to ensure that the substrate on which the flooring is placed, is dry and in no way subject to the ingress of moisture. While BT Bamboo is water resistant against light spillages or occasional over zealous mopping, the aluminium oxide coating is not vapour proof. Water vapour from the soil will saturate the sub floor area and if there is inadequate cross ventilation or the flooring is exposed to moisture, the water vapour will rise upwards through the floor into the bamboo flooring. This will cause the flooring to expand and may cause buckling.

It is vitally important to check the following points before laying your floor:

- Good ventilation with all sub floor areas having adequate air vents to all external walls (min size recommended is 230mm x 170mm x 2000mm apart)
- Minimum clearance of 400mm from the ground to the underside of the sub floor
- Adequate cross ventilation in internal dwarf walls (full brick construction) ensuring these walls are ventilated in the same manner as the external walls. If subfloor is open to the elements on the underside, additional protection may be required on the underside of the subfloor.
- Level and smooth sub floor. Level flat to 5mm per 3m radius.
- Surfaces must be clean and dry, free of dirt, wax, oil, paint, curing agents or other contaminants that would interfere with the adhesive bond

Timber Floor/ Particle Board/Tiles

Remove all existing floor coverings prior to installation. Ensure the surface is dry and thoroughly clean. Grease, oil, old adhesive or excess paint must be removed as these may adversely affect adhesion. Lay a straight edge 1.5m long to the existing floor and check that no part of the surface is more than 2-3 mm below the straight edge. Sand flat or fill as required. If the surface is particularly uneven, then we recommend a plywood underlay is used. Sand flat any raised edges. The boards should be laid crossways on an existing timber floor. If installing over tiles, ensure surfaces are crazed and prepared to ensure proper adhesion of the glue if sticking directly.

Concrete Floor

As in the case above, ensure the concrete floor is dry and clean with a moisture content not exceeding 5.5%. Refer AS1884. Generally, concrete slabs younger than 60 days are too wet and installation is not recommended. A suspended concrete slab that is well ventilated is considered to be a very suitable substrate if dry and clean as required. On ground concrete slabs are rarely dry enough to apply any pre-coated flooring system and should be treated with an epoxy moisture and vapour barrier coating. In addition to testing the moisture content with a commercial moisture meter, carry out the following tests:

- Check that the membrane under the slab is continuous and covers the edges
- Remove any dirt that is piled against the slab
- Ensure that the drainage around the slab is adequate

Moisture treatment of all subfloors

If the subfloor is moist, treat it with a suitable epoxy moisture and vapour barrier (e.g. Bostik Moisture Seal, Selley's VBS Vapour Barrier) following the instructions of the manufacturer. Or, lay builder's polythene sheeting on the subfloor. Tape all joints to ensure a continuous seal. Fold the sheeting up the walls of the laying area. If subfloor is open to the elements on the underside, additional protection may be required on the underside of the subfloor.

Levelling of all subfloors

Uneven or damaged surfaces must be repaired with a cement leveling compound, following the manufacturer's instructions (EG Bostik Ultralevel SL) or use a plywood underlay (10mm min). Leave a 10mm gap between each sheet of ply and the walls. Secure plywood with corrosion proof concrete nails or screw fix with masonry spaghetti. Seal all drill holes. The ply must be fixed securely with nails at least 300mm apart. Inadequate fixing will result in your floor having a "drummy" sound when you walk on it

Underfloor heating

BT Bamboo can be installed over heated subfloors. Subfloor preparation and installation will be carried out similar to a 'normal' installation, except for the following provisions:

- The heating system does not come into direct contact with the BT Bamboo ie. is underfloor in-slab heating
- The heating system must be turned off at least 30 hrs before and during installation
- The heating system can be turned on low 24 hrs after completion of installation, the temperature being increased gradually over a 7 day period until normal operating temperature is reached
- Maximum floor heat allowed is 24°C

Laying and installation of the BT Bamboo

Important: Work out of multiple boxes. Bamboo is a natural product with natural colour variations. While our quality standards ensure the flooring is separated by shade at the factory, shade differences between cartons may be noticeable. Mixing cartons creates a random, natural shade effect.

Important: When trimming or cutting the BT Bamboo boards, make sure you coat the cut surface with recognised brand of sealer. Take special precautions and seal side and ends near bathroom or laundry doors, windows and entries that could be subject to water ingress.

Important: Expansion Gaps

Expansion gaps of minimum 10mm are required between the edge of the floor and the walls or any other solid surface it meets. This gap should be covered by a trim after the floor has been installed. For floors widths over 8m or where extra allowance for expansion is required (moist locations) expansion joints need to be used. We recommend an expansion strip every 8m across the width of the BT Bamboo boards allowing for expansion and contraction when there are extremes in temperature and humidity. Expansion joints must also be provided at every doorway.

Glue Down Method

We recommend using a premium eco friendly wood flooring adhesive. For glue down applications that are on or below grade (directly on concrete slab) a moisture barrier MUST be used.

Materials needed

- Adhesive such as Bostik Solvent free Ultraset or Regupol one part Polyurethane Acoustic) Carefully follow the manufacturer's instructions provided with the adhesive
 - Notched trowel – recommend v-notches @ 5mm centres
 - Saw, tape measure, tapping block, 10mm spacer, hammer, weights
 - 25mm small nails for secret nailing boards into position
- Recognised brand of sealer to coat any cut surfaces (eg Bona, Peerless)

Flooring is usually laid square with the space and parallel to its longest dimension. Place a 10mm spacer against the starting wall or skirting board. Using a 5mm notched trowel spread the adhesive evenly over the prepared surface. Only spread enough glue for 3 or 4 board widths at a time. From the starting wall, place the groove first and lay each board carefully and firmly and secure into position by nailing a 25mm small nail into the tongue at a 45 degree angle every 200mm. Place each tongue firmly into the corresponding groove of the next board. BT Bamboo is laid in a brick pattern. Do not nail within 30mm from the end of the board as this might split the bamboo. Check every 4-5 boards to ensure that you are square to the starting wall. It is a good idea to mark a line on your underlay or sub-floor to line up the joins. Where you are not nailing boards and are direct sticking to sub floor make sure the floor is adequately weighted. Continue this process until the floor is complete. Remember to leave a 10mm gap at each wall surface or edge. Do not walk on floor for at least 24 hours to allow adhesive to set.

Important: Do not allow glue to penetrate through the tongue in/on to the surface. If this occurs, then wipe off immediately with a turps or methylated spirits covered rag.

Important: Wide boards

Wide longer planks may have a tendency to bow in the middle. This is NOT a manufacturing defect, but rather the nature of bamboo planks. In nail down installations this is not a problem as the boards are easily straightened. For glue down or floating installation, ensure that an above average experienced installer is used. Strapping or tape may be necessary during installation process while the glue sets.

Floating Installation

Important: Only wide board (1830 x 152 x 15mm) may be floated. Moisture protection is required over any subfloor when floating the floor.

Materials needed

- *Moisture barrier*
- *Recognised brand of underlay recommended for floating floors (eg Softlon, Regupol)*
- *Waterproof tape to join and seal underlay*
- *Recognised brand of industrial strength PVA cross linked wood adhesive (eg Robert's 6355)*
- *Saw, tape measure, tapping block, cork spacers, hammer, small crow bar, straps*

If required, remove any skirting, quarter round or doorway thresholds that may be in place. Doorway architraves should be undercut to allow the flooring to fit neatly when installed. This is best done using a hand saw. A piece of underlay and flooring placed against the architrave will act as a guide for height. Unroll the underlay so that all ends and sides fit neatly against the wall. Seams between lengths should also butt together so that no overlap occurs. Tape all ends, sides and seams with waterproof tape to ensure the water vapour barrier properties of the underlay are maintained. The underlay should be laid at 90 degrees to the intended direction of the flooring.

Start planks square with the room and parallel to the longest dimension but leaving 10-15mm expansion space from the wall. Cork spacers approximately 600mm apart or near the plank ends should be left between the floor boards and the wall structure. Place the groove to the wall. Apply a thin line of adhesive to the top inside edge of the next groove in a continuous line and insert into the plank's tongue using a tapping block and tap until the boards are firmly together. When starting the second row, we suggest the first board be a minimum of 600mm shorter than the original board to achieve a brick or random pattern. The last row will probably need to be cut to the required width. A small crow bar can be used to gain leverage against the wall when trying to ease the last of the boards together. Straps may be required while the glue is drying to hold boards together. Remove any excess adhesive immediately with a damp cloth and wipe dry to avoid "smearing". Remember to seal any cut edges of the BT Bamboo.

Completing the installation

To complete your floor, attach the finish moldings or door treads and coat as necessary or install skirting boards and architraves. Gap floor and beading with water based gapping compound (eg Fuller's) and wipe clean with a rag. Allow the adhesive to cure as per the manufacturer's instructions and clean the floor before use with methylated spirits and warm water to remove any oily film or grease from nail guns. Stubborn glue residue can be removed using Citrus Resources Orange Solv.