bt bamboo
ECO FLOORING SYSTEMS SINCE 1996

Lock Installation Instructions for

BT Strand Lock, BT Strand Engineered & BT Bamboo Engineered

Please read the following instructions before starting the installation

Applications

BT Strand/Engineered are overlay flooring systems 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 Strand** is solid strand woven bamboo with a patented Lock profile designed to be installed as a floating floor with no nails or glue. **Engineered** has a 4mm top layer of strand/vertical bamboo with 9.5mm of poplar and 1.5mm fir.

BT Strand/Engineered 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.

Pre installation

Inspection

Important: Please carefully inspect all material before installation. It is industry standard to permit a defect tolerance up to 5% which may be natural or due to manufacture. The installer assumes all responsibility for final inspection of product quality and should not use or cut off pieces with deficiencies. Any flooring installed with obvious visual or structural defects will not be warranted.

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Acclimatisation

Bamboo is hydroscopic and will expand and contract with changes in humidity. 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 2-5 days prior to installation and stored internally. The boxes should be opened to allow the flooring to adjust to normal room temperature and humidity in the room it is being installed. The shrink wrap should be removed and the boards stacked off the ground to allow for complete air circulation. Avoid installing **BT Strand/Engineered** in very damp or humid conditions. Temperature and humidity of the installation area should be consistent with normal year round living conditions for at least a week prior to installation. Air conditioning should be running at least 2 days before and during installation (especially in commercial fit outs).

Job site conditions

It is the responsibility of the installer/owner to determine that the job site conditions are suitable and environmentally acceptable for storage of flooring 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 Strand/Engineered** 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 Strand/Engineered** and allow for changes of humidity in the room.

Before commencing, ensure that the floor will fit under doors and skirting boards. It may be necessary to remove the skirting boards to allow a suitable expansion gap around the perimeter, or to trim doors and architraves.

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.

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Subfloor Preparation

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. Consider that the bamboo must be protected from moisture vapour ingress for the lifetime of the floor. While **BT Strand/Engineered** is water resistant against light spillages or occasional over zealous mopping, the aluminium oxide coating is not water 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 subfloor into the bamboo flooring. This will cause the flooring to expand and may cause buckling. All installations require a moisture barrier between the sub-floor and the Bamboo floor.

***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 (crawl space)
- 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 contaminates 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. 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. All floating floors require the use of an approved underlay.

Concrete

All concrete slab installations (including suspended concrete slabs) require the use of a moisture barrier.

As in the case above, ensure the concrete floor is dry and clean. When it is tested with a commercial moisture meter, the moisture content must not exceed 5.5% Refer AS 1884-2012.

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Generally, concrete slabs younger than 60 days are too wet. On ground concrete slabs are rarely dry enough to apply any pre-coated flooring system and special care must be taken to ensure the bamboo flooring is protected from moisture ingress. Where any concrete slab has a moisture content greater than 5.5%, it is too wet and installation is not recommended until this has been rectified. 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 Barrier

As bamboo must be protected from moisture vapour ingress for the lifetime of the floor we require **all installations use a suitable moisture barrier** – either a high quality epoxy moisture barrier (eg Bostik Moisture Barrier or Sika MB), a 2 in one moisture barrier underlay, or Builder's polythene sheeting.

If using Builder's polythene sheeting, lay it under the underlay on the subfloor, and tape all joints with waterproof tape to ensure a continuous seal. Fold the sheeting up the walls of the laying area by 50mm. If subfloor is open to the elements on the underside, additional protection may be required on the underside of the subfloor.

Leveling

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 15mm 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.

Installing the Floor

Materials required

- *Moisture barrier (eg Bostik Moisture Barrier, Sika MB Primer, builder's plastic, 2 in 1 underlay/moisture barrier such as Dunlop Aquacoustic)*
- *Recognised brand of underlay recommended for floating floors (eg Dunlop, Regupol)*
- *Recognised brand of sealer to coat any cut surfaces (eg Bona, Peerless)*
- *Waterproof tape to join and seal underlay*
- *Saw, tape measure, hammer, small pull bar*
- *Rubber tapping block*
- *15mm spacers*

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Underlay

All floating installations require a cushion underlay on top of the vapour barrier. A two in one foam padding/moisture barrier may be used. Follow underlay manufacturer's instructions.

Roll out underlay one roll at a time over the vapour barrier being careful not to poke holes through or damage underlay. Waterproof Tape should be used to secure all sides and seams.

Direction of laying

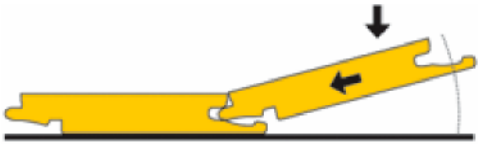
Ideally, the floor should be installed parallel to the longest wall. In a square room, the natural light source should fall along the length of the boards. When installing over existing timber boards, the new floating floor should be laid at 90 degrees to the existing floorboards.

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 boards, make sure you coat the cut surface with a 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.

How to use the Locking system

Position the panel to be installed at an angle of 20-30 degrees to the board already installed. Move the board to be fitted slightly up and down at the same time as exerting forward pressure. The boards will then automatically lock in to place. The easiest way to fit the **BT Strand/Engineered** boards is tongue in to groove.



Start the first row with a whole plank with the groove end facing the room. To ensure a perfect expansion gap, saw off the tongue on both the long and short side. Continue to remove the tongue for any machined edge that lies directly against a wall or obstruction. Using wedges as required, maintain a 15mm gap between the wall and the boards being installed. Install the boards one plank at a time. Use a tapping block to tap the locking system firmly on the sides of the boards. Where the tongue has been sawn off for boards next to the wall, use a pull bar to tap in to position.

Ensure end joints are staggered at least 250mm to provide strength to the combined floor. Use the left over pieces from the first row to start the following row. These must be a minimum of 250mm. When an entire row has been completed, review the row to ensure there is no gapping and all locking mechanisms are fully engaged. Place a weight (eg carton of boards) on the completed boards to stabilise them. Continue to use this method to install the whole floor.

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Important: When trimming or cutting the* BT Strand/Engineered *boards, make sure you coat the cut surface with a recognised brand of sealer. Take special precautions near bathroom or laundry doors, windows and entries to prevent water ingress.

For a video of installation refer to
http://www.valinge.se/products/products.lasso?id=1003667840

Expansion gaps

Bamboo is hydroscopic and will expand and contract with changes in humidity. Because the humidity of a room can vary due to differences between seasons, the floor must be able to expand and contract in all directions. It is critical that an expansion gap of 15mm is allowed around the full internal and external perimeters of the floor ie: at all walls and fixed vertical obstructions eg kitchen islands, pipes and columns. This gap should be covered by a trim after the floor has been installed.

For floors widths over 6m or where extra allowance for expansion is required (moist locations) expansion joints need to be used. We recommend an expansion strip every 6m across the width of the boards allowing for additional expansion and contraction when there are extremes in temperature and humidity. Expansion joints must also be provided at every doorway and where the flooring meets tiles, carpet or any other floor covering.

An expansion joint in the sub floor has to be provided with a matching expansion joint at the same location on the floor installed above it. The expansion gap is usually covered with an H or T profile or a proper expansion profile that allows free movement of the flooring.

Completing the installation

After installing the floor you can immediately walk on it and begin the finishing process. **Remove all spacers.** Fix the skirting boards, edge profiles to the wall or base floor, never to the floor itself to allow for the floor to move underneath the skirting board. Finish pipes with silicone. In places where no profiles or skirting can be used, the expansion should be filled with silicone. Silicone should also be inserted in to the expansion at the perimeter where the flooring may be exposed to excess moisture eg dishwasher, sinks, entrance to bathrooms and laundries.

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