

Installation of Ecodure Bamboo or Ecodure Oak over particle board, plywood and existing timber floors

Some basic things you need to know about timber based floors

- The existing flooring must be clean, dry and flat. Any creaking or bouncy areas need to be repaired;
- Water vapour evaporates from the soil under your house at a rate of approximately 40 litres per day for a 120m² to 140m² house. This moist air must be removed by effective ventilation of the subfloor. Floors less than 1m above ground level must have subfloor moisture barriers such as building foil under the subfloor or polythene laid over the ground in advance of the floor being laid;
- If you are planning to install insulation, do this before installing your floor. Changes to the humidity of your home after installing the floor can result in creaks or gaps;
- **A word about new homes:** Today's buildings are erected very rapidly, however the interior finishing must not be rushed. Building materials often become very wet during the building process and need plenty of time after the building is closed in, to dry out. Common sense advice is that if your home is not ready for interior painting, it is too soon to be thinking about installing your floor. Flooring should be the last item installed in your home, after all other trades have finished. Pre-paint the skirting boards and install these once the flooring is down.

Some basic information you need to know about Bamboo

- Bamboo like all wood, can be sensitive to moisture changes, however with a few common sense precautions it is highly unlikely that you will have any issues. Please read this Installation Guide, along with our FAQ's, Maintenance Guide, Terms and Conditions of Sale and Warranty. If you have further questions, please do not hesitate to contact us, we would love to help;
- 100% Compressed Bamboo should be acclimatised or conditioned on site for no less than 7- 10 days prior to installation. This applies in particular to floors over 5 x 5 m². Do not acclimatise Engineered Bamboo or Oak, these should be left in the boxes until installation commences.

Laying Ecodure Bamboo or Ecodure Oak on particle board, plywood and existing timber floors

- If you have a timber substrate you have two choices of installation - floating or glue down. Floating is by far the most common type of installation, quick, economical and easier to repair in case of later damage;
- Do not glue down Solid Compressed 135mm Bamboo boards, however all Engineered Bamboo & Oak boards may be glued down;
- For **floating floor** installation - once your flooring has been acclimatised, it is ready for installation. We specify Ecodure Accord Premium 5-in-1 Underlay (details for Accord Premium Underlay can be found on our website). The Underlay is laid directly onto the subfloor, 'tanking' the underlay and using the adhesive strips on the underlay to stick it down, overlapping the plastic folds on the rolls to create a continuous barrier;
- For glued down floors we specify Sika T55 low viscosity elastic adhesive for wood flooring applied with 4mm notched trowel. For Engineered floors you can use Sika T53 High Viscosity elastic timber flooring adhesive applied in cordons.

Surface tolerances for timber substrates

- Not all plywood, particle board and timber is laid perfectly level and flat, even in a new home. The existing floor should have **no deviations that are greater than 3mm over a 3 metre straightedge in any given direction and no abrupt deviations greater than 1mm over 250mm**. Floors which do not meet this standard must be sanded and/or professionally levelled. A floor which is not level can result in bounce, squeaking and wear and tear on the joins of the planks.

Acclimatising or conditioning timber

- Solid Bamboo must be acclimatised for at least 7 - 10 days on site. Please contact us well in advance of your installation to make sure it is delivered soon enough. You must be satisfied that the building is suitable to receive the Bamboo – e.g. dry and secure. Conditioning should take place at the expected normal room temperature and humidity levels before and after installation. Ambient humidity levels should be 40-60% RH. Do not acclimatise Engineered Bamboo or Oak, these should be left in the boxes until installation commences.

Installation basics

- We recommend using an experienced timber floor installer who fully understands the building code, standards and best trade practices, and has read this guide;
- Allow about 7-10% extra material for cutting and grading;
- Inspect the flooring and subfloor carefully for any blemishes before laying;
- Ecodure flooring is manufactured for average New Zealand conditions. Bamboo and Oak flooring are natural products – **expansion and contraction** occur naturally and is caused by changes in humidity and temperature. This is normal and acceptable and is allowed for onsite, by expansion allowances in the floor. We advise **acclimatising or seasoning** of all solid Bamboo for 7 – 10 days prior to laying. Seasoning should occur at normal living conditions in the rooms where the floor is to be laid, fillet the timber so it is not directly on the floor during this time. Installation requires expansion gaps for the floor to expand and contract. It is recommended to **allow at least 8 - 15mm around every edge** of the floor and around pillars or other fixtures. Expansion will take place under the skirting boards, kitchen cabinets and other trims. In large rooms ie 5 x 5m² plus, more expansion is required. A convenient way to do this is to lift the gib board off the floor or undercut it. Floating floors are secured on all edges by trims or skirtings which allow for expansion to take place;
- **Adhesive** - For floating clicklock floors use Aliphatic PVA on all ends and the underside of each click joint. Remove excess PVA with a slightly moistened rag. Sika T55 can be removed with Sika Cleaner Remover 208. Test this on an offcut first. Stay off the floor for at least 24 hours until the adhesive dries;
- **Glue down floors** – We only advise gluing down of Engineered Bamboo, solid 96 mm T&G Bamboo planks and Engineered Oak. Only trained installers should attempt a glue-down installation. Once the flooring has been acclimatised or conditioned if T&G, it may be direct stuck to the existing substrate. **Do not glue Solid Compressed 135mm Bamboo boards.** For the adhesive to bond, the floor needs to be clean, dry and free of contaminants such as dust, paint, polyurethane and plaster. Adhesives are very variable in quality and our experience shows that Sika T55 is the best product available to use with Ecodure Flooring. T55 is applied with a 4mm notched trowel, across the direction of the plank. Full details and specifications on T55 are available on their website www.sika.co.nz or by contacting us. Do not use gunned on glues or apply glue in a squiggle pattern. Excess glue can be removed with Sika Cleaner Remover 208. Test this on an offcut first;
- **Skirting boards** - For new building work, leave the skirting boards off until the floor is down. If possible lift the gib board up from the floor about 18mm to allow extra expansion space. For renovation work, taking the skirtings' off is preferable, or discuss undercutting with the installer – this however is a compromise in terms of the quality of the overall finish;

- **Kitchens** – discuss your flooring choice with your kitchen supplier. Ideally cabinet carcasses without panel ends and toe kicks will be installed before the floor. After the floor is laid the kitchen supplier will then fit the toe kicks and panel ends; please look at our recommendation for order of kitchen installation under FAQ's;
- Don't screw fittings permanently to the floor as this can affect its ability to move.

After installation - care for your Ecodure Bamboo or Oak Floor

- After your floor has been installed you will need to **clean it regularly**. Our experience has taught us that a simple routine of sweeping with a soft household broom, followed by a flat microfibre mop, is best. The advantage of Microfibre is that it's a chemical free system, you only need to mist the floor very slightly with a spray bottle of water. We find many vacuum heads are too harsh and you must not use a steam mop or any other wet mop system. For heavily soiled floors and an occasional thorough clean use Bona Wood Floor Cleaner. Do not use any other cleaning products – **please see our detailed Maintenance Guide for Oak & Bamboo for full maintenance recommendations**;
- Maintain a **constant environment**: Before and after your floor has been laid you need to make sure the equilibrium of the environment stays constant. Timber and Bamboo are naturally hygroscopic – this means they may be affected by changes to moisture content in the environment caused by weather conditions, heating, cooling etc. Your house also needs to have adequate ventilation at all times. It is common knowledge that houses can get very hot when left locked up or vacant, this is known as the “greenhouse effect” and this can act to dry the floor out from the top, which may cause permanent changes in your floor. In addition new homes are often very airtight, designers and home owners need to be aware of providing adequate ventilation to prevent elevated internal moisture levels. As a general guide, condensation on the inside of windows indicates that internal moisture needs to be addressed. Be aware of introducing sources of moisture such as unvented driers, washing left on clothes racks, unflued gas heaters, bathrooms with no extractor fans. This advice also applies to installing new insulation in your home after the floor has been installed. Ambient humidity levels are ideally between 40-60% RH.

Failure to fully follow these guidelines and specifications may affect Warranties

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Recommended reading:

BRANZ House Building Guide 2004

BRANZ Level Sustainable Buildings Series - Floor Coverings

BRANZ Bulletin 534 - Overlay Flooring Systems Over a Suspended Floor (2011)

BRANZ Good Practice Guide – Concrete Floors and Basements (1998)

BRANZ Bulletin 513 - Timber Composite Overlay Flooring (2009)

BRANZ Bulletin 515 - Measuring Moisture in timber and concrete (rev. 2010) replaces 424.

BRANZ Bulletin 506 - Laying solid timber strip flooring on concrete slabs (2008)

Not applicable for Bamboo but good general information

BRANZ Bulletin 330 - Thin Flooring Materials -2 Preparation and Laying (1995)

SIKA products technical literature - www.sika.co.nz

THOMSIT products technical literature – www.thomsit.com

Building Standards:

New Zealand Building Act 1992

New Zealand Building Code (NZBC)

New Zealand Standards NZS3602, 3604 and 4229.

Note – there are no definitive standards in New Zealand for Bamboo flooring.

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