

Gluedown floors should be installed in accordance with these instructions as well as the applicable national standards and building codes for the installation of resilient flooring at the time of installation, to ensure a quality fit. These floors are not suitable for installation outdoors or in rooms that will be continually wet. They are suitable for use in traditional residential bathrooms, kitchens, laundry / utility rooms.

Failure to observe and follow these installation guidelines and / or current national standards and building codes at time of installation may result in any potential warranty claim being void.

### National standards and building codes

Australia and New Zealand: AS / NZS 1884

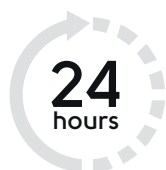
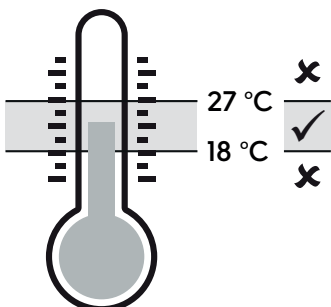
### Pre-installation

It is the responsibility of the installer to visually inspect all materials in optimal lighting to confirm it is the correct design, colour, batch, quality, free from defects and quantity as ordered. If the material or batching is incorrect or where defects are apparent, the store of purchase must be contacted before the material is installed. Complaints and claims regarding clearly identifiable defects will not be accepted after installation. Preparation and installation should not begin until all other trades have completed their work.

### Acclimatisation of material

Flooring materials should be removed from packaging at least 24 hours prior to installation and allowed to condition in the room where installation is to take place (tiles / planks may be stacked but must be rested flat). HVAC systems, where available, should be in operation during the acclimatisation period (at least 24 hours prior to, during, and 24 hours after installation of floor coverings). Exposure to direct sunlight should be avoided during the acclimatisation and installation process by means of window coverings or temporary measures.

For optimum performance, room temperature should always be maintained between 18-27°C.



### Subfloor preparation

Subfloor preparation must comply with applicable national standards and building codes for the installation of resilient flooring at time of installation and in strict accordance with these installation guidelines.

The subfloor must be firm, hard, flat, level, smooth, dry, clean and dust-free and should be prepared dependent on your subfloor type.

See section **Types of subfloor** for specific preparation guidelines.

### Moisture in subfloors

Moisture of the base subfloor must be measured according to the relevant local standard. See Table 1 for moisture levels. For any subfloor showing a moisture value above these limits, a suitable damp proof membrane / moisture suppression system must be used.

**NOTE:** some national standards require the pH of the concrete slab to be controlled.

**Table 1: Moisture in subfloors**

AUS / NZS 1884

| Concrete Primary test method<br>ASTM F2170<br>Hygrometer test | Concrete Secondary test method<br>ASTM F1869<br>Calcium chloride test | Timber and particleboard Test method<br>AS/NZS 1080.1 | Plywood Test method<br>AS/NZS 2098.1 |
|---|---|---|--------------------------------------|
| 80% RH  | 15g / m <sup>2</sup> / 24hrs  | 10% - 14%   | 10% - 14%                            |

**NOTE:** RH and Vapour emission rates noted in table 1 are default moisture levels where underlayment or adhesive manufacturers product does not offer a recommended maximum value. The underlayment and / or adhesive manufacturer's installation guides and / or data sheets should be reviewed to confirm specific requirements and acceptable RH and / or Vapour emission rates for the specific product(s) to be used in the complete installation system.

### Arranging the planks / tiles

The design on this product is randomly distributed and can be heavier on some tiles / planks than others. To prevent heavy and light colour shading areas, the tiles / planks should be unboxed and shuffled.

## Installation procedure

1. Lay the tiles and planks into freshly spread Karndean Megabond hard set adhesive, applied with an unworn V1 1.6 mm x 1.6 mm notched trowel without allowing tack-up to ensure maximum bond strength and minimise the risk of peaking and gapping. Pending site and / or environmental conditions, a two-part chemical cure adhesive or 1-part modified silane heat and moisture resistant adhesive may be required. The use of these adhesives are to be applied with suitable applicator and spread rate as per adhesive manufacturer's instructions.
2. Use a hand roller for each small section immediately as you progress. Wipe excess adhesive off immediately with a damp cloth.
3. The whole area should be rolled in both directions after installation using a 45kg roller or a hand roller in confined areas, paying particular attention to the edges.
4. Ensure all planks and tiles are free from traffic for 24 hours after installation (or protect them from direct contact e.g. cover with board / sheeting).
5. Clean-up surplus adhesive following manufacturer guidelines. For most adhesives, it is recommended that they are removed while still wet, using a damp cloth. Dry adhesive can only be removed using mineral spirits or supplier "Remove".  
**NOTE:** If using a moisture-curing adhesive, use mineral spirits (for tools only), or builders wipes, do not clean with water. Cured adhesive can only be removed mechanically. Follow adhesive instructions for detailed clean up procedure.
6. Maintain climate conditions as per acclimatisation process after installation.

## Use of adhesives

**NOTE:** the company will not be liable for any loss, damage or complaint if the incorrect installation method or adhesive system is adopted for the installation, and / or the adhesive manufacturer's instructions are not strictly followed.

## Types of subfloor

**NOTE:**

- Any primer, levelling compound or other underlayment should be installed in accordance with instructions from that manufacturer.
- No responsibility will be accepted for any subfloor or joint show through to the installed product, either as a "ridge" or a "valley".
- Warning: solvents and other abrasive chemicals used to clean or remove subfloor contaminants can damage the backing and affect the product's performance.

## Old adhesive residues

All adhesive residues from previous installations must be mechanically removed. No chemical adhesive removers are allowed on a concrete substrate.

**NOTE:** Any contaminants left on the surface of the subfloor may adversely affect future adhesion or cause discolouration.

### 1. Solid subfloors

#### Concrete

These subfloors should comply with the requirements of the national standards and building codes noted on page 1.

#### New and old

For all concrete floors, mechanically abrade the floor either via diamond grinding, scarification or light shot blasting to remove contamination (laitance, paint, plaster, adhesive etc). Assess and treat the exposed subfloor. Apply a suitable damp proof membrane (as required), primer and underlayment system in accordance with the product manufacturer(s).

#### Power floated concrete

After using a water drop test (per ASTM F3191) to determine porosity (beading of water droplets), mechanical abrasive preparation either via diamond grinding, scarification or light shot blasting may be necessary to remove laitance and allow adhesive to disperse into the substrate. Where moisture values exceed the above limits, these surfaces must still be abraded before the application of a suitable damp proof membrane / moisture suppression system. Assess and treat the exposed subfloor, apply a suitable damp proof membrane (as required), primer and underlayment system in accordance with the product manufacturer(s).

#### Sand cement / 'Anhydrite' (calcium sulphate-gypsum)

Sand cement and anhydrite screeds can be difficult to identify and can be mistaken for more traditional cement-based products.

Sand cement and Anhydrite subfloors are not an acceptable subfloor for this product in Australia or New Zealand. These forms of subfloors do not possess the required tensile and compressive strength for resilient floor covering installation.

#### Painted floors

Mechanically remove all paint back to the original base. Assess and treat as per the exposed subfloor, apply an appropriate damp proof membrane (as required), in consultation with the underlayment supplier.

## 2. Wood subfloors

### All chipboard / particleboard / MDF / OSB

Overlay with a 5.5 mm flooring grade underlay system (for alternatives see Table 2). Underlay systems must be fixed according to manufacturer's instruction and to national standards to eliminate potential movement later from changing climatic conditions. Alternatively, use an appropriate primer and levelling compound by consulting your underlayment supplier. For areas where frequent spillages are likely, use fibre cement sheets instead installed to manufacturer's guidelines and current building codes.

### Flooring grade plywood floors

Plywood joints should be smoothed over using skim coat / patch or using an appropriate primer and levelling compound by consulting your underlayment supplier. For any plywood floors with thickness less than 5.5 mm, treat as chipboard. Test for dampness and vacuum all dust to facilitate bonding.

### Standard floorboards / tongue and groove

Floorboards should be well secured, loose boards firmly fastened, and worn / broken boards replaced. Install a minimum 5.5 mm flooring grade underlay system (for alternatives see Table 2), fixed according to manufacturer's instruction and to national standards standards to eliminate potential movement later from changing climatic conditions. Alternatively, use a suitable primer and levelling compound by consulting your underlayment supplier. For areas where frequent spillages are likely, use fibre cement sheets instead installed to manufacturer's guidelines and current building codes.

**NOTE:** Being extremely porous, fibre cement sheets must first be primed with an appropriate primer and, where required, a smoothing or levelling compound, by consulting your underlayment supplier.

### Undulating timber floors

These should first be levelled, by sanding or planing to remove undulations. Then overlay with flooring grade 5.5 mm underlay system (for alternatives see Table 2), fixed according to manufacturer's instruction and to national standards to eliminate potential movement later from changing climatic conditions .

Alternatively, a suitable primer and smoothing compound may be used in consultation with your underlayment supplier.

### Wood mosaic panel, woodblock, wood strip, laminate / click products

These floor coverings must be removed together with any underlay and flooring accessories. The subfloor should be treated appropriately.

**Table 2: Underlay and underlayment system specification and alternatives**

|             |   |
|-------------|---|
| AS/NZS 1884 | Standard hardboard underlay of Type GP conforming to AS/NZS 1859.4.<br>High performance medium density fibreboard (HP MDF) conforming to AS/NZS 1859.2.<br>Plywood underlay of Grade C conforming to AS/NZS 2269.0.<br>Fibre-cement sheet underlay conforming to AS/NZS 2908.2.<br>An underlayment specifically designed for timber composite floors. |
|-------------|---|

**NOTE:** Underlay and / or underlayment systems MUST be installed according to manufacturer's instruction and to national standards.

## 3. Other existing subfloors

### Asbestos

Some older resilient tiles and adhesives can contain asbestos. Asbestos and asbestos adhesive residue must be mechanically removed by a professional abatement company prior to installing any LVT. In case of doubt contact the relevant authority for advice on removal and disposal.

### Metal floors

The metal surface should be cleaned, degreased and then mechanically abraded to remove contamination / rust and provide a surface key. Where this gives a level surface, the floor covering should be adhered with 2-part chemical cure adhesives or 1-part modified silane adhesive as per adhesive manufacturer's instructions; otherwise it must first be primed and levelled with the recommended levelling compound, per underlayment manufacturer's instructions.

### Quarry tile / mosaic / terrazzo / porcelain / ceramics

Test floor for evidence of damp. If dampness is detected consult your supplier.

In most cases these substrates will not be sufficiently absorbent for the adhesive to disperse into the substrate. These should either be removed, and the subfloor prepared and treated as per the exposed subfloor, or mechanically prepare the surface by thoroughly cleaning, rinsing and abrading the surface, taking extra care to ensure that the surface is firm, dry and free of wax, oil, dust and loose tiles / fragments and that all holes are repaired with a suitable fast-set repair mortar. Apply an appropriate primer & levelling compound by consulting your underlayment supplier, ensuring that all grout lines are filled with no show-through. A second topcoat of primer and levelling compound may be required to smooth over old tile grout lines.

### Resilient floor coverings e.g. linoleum, PVC, cork, thermoplastic, carpet

Remove existing floor covering and all traces of adhesive residues. Then assess and treat the exposed subfloor appropriately in consultation with your underlay / underlayment supplier(s).

### Miscellaneous floors

Magnesite, Granwood, etc. Consult your supplier.

### Extreme temperature fluctuations and high spillage areas

(Sunrooms / Conservatories / areas adjacent to panoramic or floor to ceiling glazing / unheated rooms/high spillage wet areas).

In areas likely to be exposed to high surface temperatures, direct sun exposure, high spillage and / or repeated wet conditions the floor must be installed with a suitable 2-part chemical cure adhesive or 1-part modified silane adhesive as per adhesive manufacturer's instruction. It is necessary to keep the temperature in these areas at 18-27°C for 24 hours prior to, during, and 24 hours after installation or as directed as per adhesive manufacturer's instruction. Shade windows prior to, during and after installation as per acclimatisation process.

### Underfloor heating

Planks / tiles may be installed over underfloor heating systems, but these must be constructed so that the temperature at the adhesive interface does not exceed 27°C ensuring the correct adhesive is used. The underfloor heating must be commissioned before installation commences. It should then be switched off 48 hours before, during, and 48 hours after installation. The temperature can then be gradually increased to a maximum 27°C at no more than 2°C per day to the desired temperature.

Electrical underfloor heating: please consult manufacturer to ensure their system is compatible with this flooring. Mesh / wire systems must be bedded into a base coat of appropriate primer & levelling compound to cover the wires or mesh by consulting your underlayment supplier.

The room temperature must be between 18°C-27°C prior to and during installation, for both concrete and timber subfloors.

For underfloor heating pipes set into concrete, prime the surface before applying a compatible levelling compound as per the manufacturer's instructions.

**IMPORTANT:** Care must be taken to avoid damage to the floor caused by localised "hot spots / thermal blocks". Consideration must be given in placing rugs, and items of furniture which do not allow hot air circulation. No responsibility for damage to the floor covering can be accepted under these circumstances.

### Maintenance

- Use entrance mats to protect against grit and moisture
- Ensure mats and rugs are not rubber-backed (and of a non-staining variety) to prevent any discolouration of the floor.
- Avoid sliding or dragging furniture or other objects across the floor - use floor protector pads to prevent scratching.
- Use large castor cups or other means to protect against indentation from heavy furniture.
- Regularly sweep the floor to remove loose dirt or grit as these can cause fine scratches.
- For a thorough clean, a range of pH neutral cleaning materials are available. Avoid the use of household cleaners and bleach-based detergents. These could make the floor slippery or cause discolouration.
- Always mop up spills as soon as possible to reduce the risk of slipping and possible staining.
- Do not subject this flooring to standing water. This will present a slip hazard.
- Floor care guides are available from your supplier or the Karndean website.

### Contact Karndean

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