Rigid Core with 5G® Fold Down System

Installation Guidelines

Karndean
Designflooring

General information

It is essential that this 5G® rigid core product is 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. Prior to installation, please check that this product is suited to the end use application. If in doubt, please contact your supplier.

This product is a floating floor with excellent acoustic, thermal and waterproof properties made rigid to assist installation over uneven subfloor surfaces. It will not absorb, swell or be damaged by water. When installed properly and under normal use, damp mopping and topical spills cleaned up promptly will not harm the performance of the floor. This product is not suitable for installation outdoors nor in rooms that will be continually wet. It is suitable for use in traditional residential bathrooms, kitchens, laundry/utility rooms.

Install permanent fixtures prior to installation of this product, leaving a space for expansion and contraction; see below.

Please refer to section **Installation procedure** as to when sealant is permitted in expansion gaps.

A separate underlay is not normally recommended; refer to floor covering supplier for details.

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

For commercial installations make sure flooring materials are removed from packaging at least 48 hours prior to installation (planks/tiles may be stacked but must be rested flat) and allowed to condition in the room where the installation is to take place. Room temperature must be kept between 18-27°C.

For residential installations acclimatisation is generally not essential if the product temperature is already in the range 18-27°C but if the product has been exposed to extreme temperatures prior to installation, acclimatisation is required.
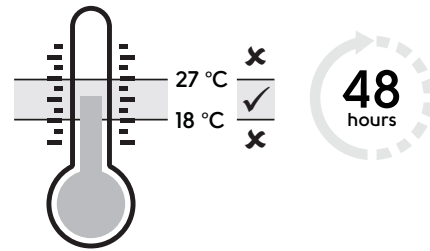
Subfloors

Before this product may be installed, all subfloors should be solid and sound, smooth and level, clean and swept free of all debris.

Any unevenness in the subfloor should be limited to a maximum of 5 mm below the level for 3 m in any direction. **Any isolated highpoints/ridges should first be removed** to avoid damage to the product. Larger differences in height may need to be levelled out by filling the entire surface of the floor. Additional guidance on subfloor preparation is provided by the national standards and building codes for the installation of resilient flooring listed on page 1. If in doubt, please contact your supplier.

Moisture in subfloors

Moisture of the base subfloor (e.g. concrete) must be measured according to the relevant local standard:

- Hygrometer test (primary test method ASTM F2170) = less than 95% RH.
- Calcium chloride test (secondary test method ASTM F1869) = no more than 15g/m² moisture per 24 hours.

Moisture of the base subfloor (e.g. Timber, ply and particleboard) must be measured according to the relevant local standard:

- Timber and particleboard subfloors (Test method AS/NZS 1080.1) = 10% - 14%
- Plywood subfloors (Test method AS/NZS 2098.1) = 10% - 14%

If any subfloor shows moisture readings above these values, an appropriate damp proof membrane (DPM) or moisture suppression system must be used.

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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

For detailed installation steps please see page 4

NOTE: Rigid core/hybrid flooring should be protected from heat and/or prolonged exposure to direct sunlight as this may cause damage to your floor. See section Sunrooms / conservatories / high temperature areas.

This product should be installed with a minimum expansion gap of 5 mm around the perimeter of the room and all fixed objects, including pipes. This minimum must be increased to 8 mm for areas larger than 100 m² (consult your supplier for larger areas). Note: the minimum expansion gap is defined as the smallest gap between product and static fixture, that can be measured at ANY point around the perimeter.

To allow for thermal expansion, door frames should either be undercut, or an expansion gap left. Skirting/base boards should either be removed or undercut. Alternatively, a suitable edge trim should be used to cover the expansion gap. Mouldings or skirtings installed post floor installation should be fixed to the wall and NOT to the floor covering, leaving a 0.5 mm clearance between these and the floor surface.

In potential wet areas where it is necessary to protect the expansion gap between perimeter walls, fixed furniture and the flooring product from potential water exposure, a flexible acrylic or flexible low modulus neutral cure silicone sealant may be used. Sealant should not be used for the general filling of expansion gaps.

The potential wet area is to be isolated from the main field using an expansion joint system or similar at door junctions. NOTE: As a guide we recommend a maximum net sealed area of 4 m². For larger areas please consult your supplier.

Where the flooring run exceeds 15 m in width or length, an 8 mm expansion joint should be used and repeated thereafter.

This product should always be installed with staggered joints:

*   Planks with a minimum 200 mm between short ends
*   Tiles as a 'brick pattern (off-set)

Such that four corners never meet. Refer to installation Fig.4a / 4b.

Use of adhesive

Adhering to the substrate is not usually permitted with rigid core products as it will inhibit the ability of the material to expand and contract.

There is one exception to this which is residential stair installation. Please contact your local supplier for recommendations on appropriate adhesive and advice on installation.

Sunrooms / conservatories / high temperature areas

Special care must be taken when installing this product in rooms that are exposed to large temperature fluctuations e.g. unheated rooms, sunrooms/conservatories or direct sun through glass doors, as incorrect use of expansion gaps can cause damage. In these cases, a minimum 10 mm expansion gap should be used.

This product is not suited to use in saunas/similar.

Floors should be adequately protected in the vicinity of stoves/open fireplaces.

NOTE: Rigid core/hybrid flooring should be protected from heat and/or prolonged exposure to direct sunlight as this may cause damage to your floor.

Tools

For a successful installation, the following tools will be necessary – pencil, utility knife, tape measure, ruler/straight edge, carpenter's square, saw, spacers, hand roller, pull bar, hammer, and rubber mallet, tapping block, drill and spade bit (for cutting around pipework).

Types of subfloor

*   Concrete/Screed: Where the subfloor is uneven an appropriate smoothing compound should be selected.
*   Quarry Tiles/Mosaics/Terrazzo/Ceramics: Ensure the surface is firm, dry and free of wax, oil and dust particles. Fix any loose tiles. Level any grout lines with a width and/or depth of more than 5 mm.
*   Timber Floors: These should be solid with minimal flexibility. All loose boards must be firmly fastened, gaps filled and undulations removed. Where necessary, overlay floorboards with flooring grade plywood or similar underlay.
*   Woodblock/Parquet Floors: Make sure these floors are solid and fix any loose or broken areas. Wood block floors laid direct to earth/bitumen/pitch must be removed prior to installation.
*   Metal and Painted Floors: Remove any loose paint or other finishes.
*   Linoleum/Thermoplastic/Vinyl/Cork: Make sure these floors are solid and fix any loose or broken areas.
*   Any existing floors installed with asphaltic tile adhesive (ATA or 'Cutback') must first be suitably covered/encapsulated or mechanically removed.
*   Textile floor coverings (including carpet) must be removed.
*   Laminate: It is normally recommended that this is uplifted.
*   Asbestos: Some older resilient tiles and adhesives can contain asbestos. Asbestos and asbestos adhesive residue must be mechanically abated by a professional abatement company prior to installing any LVT. In case of doubt contact the relevant authority for advice on removal and disposal.
*   Other Floors: Consult your supplier.

This product must always be installed over a solid base. Floating floors or cushion backed flooring are not suitable substrates and must be removed.

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Underfloor heating

Underfloor Heating: It is possible to install this product over floors incorporating underfloor heating, but these must be controlled to keep the temperature at the interface between the backing and subfloor surface at no more than 27°C.

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.

NOTE: Underfloor heating may affect moisture levels. Consult your supplier for details.

Maintenance

- 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 products are available ('Clean', 'Remove' & 'Refresh'). Avoid the use of regular 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.
- Use entrance mats to protect against grit and moisture.
- Ensure mats and rugs are of non-staining variety (not rubber-backed) 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.
- Maintain room temperature between 18-27°C for optimum performance.
- Do not subject this product to standing water. This will present a slip hazard.
- Care must be taken when using underfloor heating to avoid damage to the floor caused by localised 'hot spots/thermal blocks'. Care must also be taken in placing rugs, and items of furniture which do not allow hot air circulation.
- The floor must be protected from excessive heat and/or prolonged exposure to direct sunlight as this may cause damage to your floor.
- Floor care guides are available from your supplier or the website. Refer to your supplier should floor tiles/planks become damaged.

For product questions, please contact the flooring dealer where you made your purchase.

Contact Karndean

AUS: 1800 331 170

NZL: 0800 442 101

Email: technical@karndean.com.au

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Installation steps

1. Starting with a full plank/tile along the wall, calculate how many widths there are across the room. If this means there will be a row of narrow planks/tiles along the opposite wall, cut the first row accordingly. Install this product with the tongue side/cut edge facing the wall. Install 5 mm spacers between the plank/tile and wall (Fig. 1).

2. Install the first row, ensuring the short edges are clicked together (Fig. 2).

3. Using a knife and straight edge, cut the last piece of the row to size making sure that there is 5 mm gap between the end of the row and the wall.

4. Start the second row by clicking the tongue into the groove holding the plank at an angle (approximately 30°), then tap the plank/tile firmly into the groove of the first row. Install the next plank/tile by easing the tongue and groove together on the long side (Fig. 3). Tiles and planks should be installed 'off-set' such that four corners never meet (Fig. 4a and Fig. 4b).

5. Once the long side is aligned and tight, drop the short end into place by rubbing over the end joint with your thumb or a small roller until a 'click' is heard (Fig. 5a and Fig. 5b).

6. Continue to install planks across the room until the row is complete using a hand roller to assist. Only if necessary, use a rubber mallet and an offcut of the product to gently tap the product. A pull bar can be used to pull the product together around the edges of the room (Fig. 6).

7. Repeat steps 4 to 6 until the installation is complete.

8. Under door frames: If plank/tile cannot be lifted use an adapted tapping block (off-cut of material) and mallet to carefully tap the plank/tile together flat on the floor (Fig. 7).

9. When installing around corners/convex corners, or complex profiles, mark the shape on the plank/tile and cut using a saw.

10. Once the floor is installed, remove the spacers; sweep the floor with a soft brush. Fix the skirting/base boards or suitable edge trim (available from your local distributor) to cover the expansion gaps. These should be attached to the wall and not the floor, such that the product remains free to expand (Fig. 8 & Fig. 9).
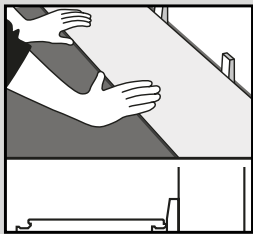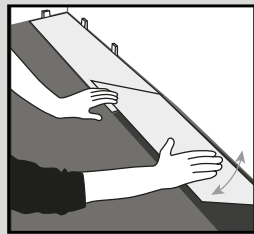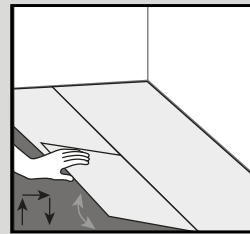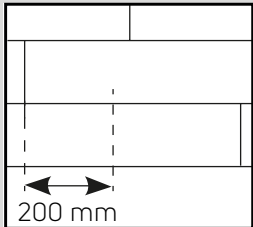

Fig. 1

Fig. 2

Fig. 3

Fig. 4a

Wood effect: Planks should be fitted with random staggered joints with a minimum 200 mm between short ends.
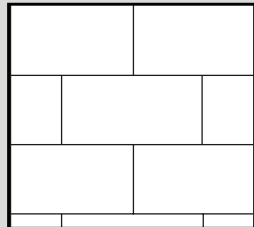
200 mm

Fig. 4b

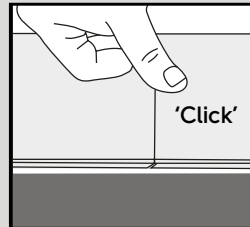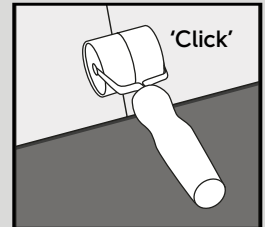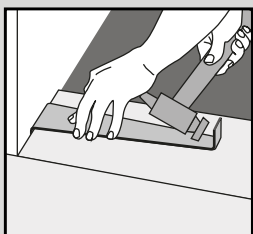Stone effect: Tiles should be fitted in a 'brick' pattern (off-set).

Fig. 5a

'Click'

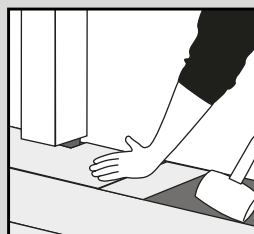
Fig. 5b

'Click'

Fig. 6

Fig. 7

Fig. 8

Fig. 9