

Interior Tiling Installation Guide

- 1. About tiles -----03
- 2. Scope & Limitations -----03
- 3. Safety & Health -----05
- 4. Substrate Preparations -----06
 - 4.1 Clean & Drying -----06
 - 4.2 Sound & Smooth -----06
 - 4.3 Concrete Floors -----07
 - 4.4 Wooden Floors -----07
 - 4.5 Underfloor Heating -----07
 - 4.6 Wet Areas Membrane System -----08
 - 4.7 Before installation -----08
- 5. Layout -----09
- 6. Installation -----10
 - 6.1 Responsibility -----10
 - 6.2 Preparation -----10
 - 6.3 Dry Fit -----10
 - 6.4 Tile Installation -----10
 - 6.5 Tile Spacers -----11
 - 6.6 Tile Cutting -----11
 - 6.7 Continued Laying -----11
 - 6.8 Grouting -----11
 - 6.9 Cleaning -----12
 - 6.10 Maintenance -----12

1. About Tiles

Tiles are usually thin, square, or rectangular coverings manufactured from hard-wearing materials such as ceramic, or porcelain. They are generally fixed in place in an array to cover floors, walls, edges, or other objects such as tabletops.

Ceramic tiles consist of three main parts: "Glaze" The top layer that provides color, texture, and a protective coating; "Body" The core material, usually made of clay, which forms the bulk of the tile; "Backing Layer" The bottom surface that adheres to the mortar during installation.

Note: Tile adhesive must be demonstrated as compatible in accordance with AS ISO 13007 and recommended for use together by both the membrane Supplier and the adhesive supplier.

2. Scope & Limitations on the use Overlay Veneer Stone Plastic Composite Flooring System

This tiles system is for commercial and residential indoor use and is not to be used outdoors. Violation of this will result in the warranty being voided.

This product is suitable for all areas except outside.

Tile adhesive must be demonstrated as compatible in accordance with AS ISO 13007.

The product must be installed onto an approved subfloor. Ensure the timber or particleboard floor is sufficiently rigid for a tiled finish.

All tiling of wet-area waterproof membrane systems must be installed in accordance with AS 3958.

The products are used with underfloor heating systems Water and electricity do not mix so it's important to keep them separate.

During maintenance and cleaning, the maintenance and care guide provided by FLOORCO must be this installation guide.

fill the gap at the base of the wall lining and the floor with the recommended sealant.

Normally you would allow 3-5mm for inside tiles, 5-10mm for outside tiles or even more for very large or irregular tiles.



3. Safety & Health

In every scenario, safety and Health takes precedence

Be it tools, the site, or materials, should they pose a threat to your safety and health, it's imperative to exit the area immediately.

To further ensure your safety and well-being, please following protective gear:

- ❖ **Safety Glasses:** To shield your eyes from flying debris.
- ❖ **Ear Protection:** To safeguard your hearing amidst noisy environments.
- ❖ **Masks:** To prevent inhalation of harmful dust and particles.
- ❖ **Safety Vest:** To enhance your visibility on site.
- ❖ **Steel Toe Shoes:** To protect your feet from heavy falling objects.

Note:

The required on-site safety practices and procedures specific to the installation of waterproof membrane systems include (but are not limited to):

Usage of protective clothing and equipment, including knee pads and suitable footwear. In particular:

Solvent-resistant gloves must be worn to reduce the risk of solvent-based products coming into contact with skin.

Respirators must be used when working with membrane systems that have high Volatile Organic Compounds (VOCs).

4. Substrate Preparations

Remove or clean all surface contaminants- any glue or sticky adhesive residue needs to be mechanically eradicated.

4.1 Clean & Dry

Remove or clean all surface contaminants- any glue or sticky adhesive residue needs to be mechanically eradicated.

The substrate surface must generally be dry, clean, and free of any contaminants, concrete splashes or nibs, dust, holes, protruding nails or screws, and any other protrusions not shown in the building consent documentation. External corners must have an arris, chamfer, or radius to help the waterproof membrane system wrap around without stress or thinning.

4.2 Smooth & Leveling

Remove areas of uneven floor by applying leveling compound to fill dips or hollows. Sanding or grinding may be used to remove small high areas. The floor must be left clean, dry, and free of dust and debris.

Administer levelling compound following the manufacturer's guidelines to ascertain a flat foundation for the tiles. The levelling compound additionally serves to protect the element or mesh until the tiling process is finalized. Permit at least 24 hours for the levelling compound to set, or as directed by the Manufacturer's guidelines. Prime the levelling compound thereafter.

Note: Post installation, refrain from walking on the floor until the element has been safeguarded.

4.3 Concrete Floors

Ensure that new concrete floors are fully cured prior to tiling, with a minimum curing period of 28 days for every 75mm thickness of concrete.

Thoroughly cleanse the area with ample water and scour with a stiff brush to ensure all impurities are eliminated. Allow the concrete surface to become dry and Fix any fissures prior to installing tiles.

4.4 Wooden Floors

Tiling directly onto the sturdy reliable particle board, or plywood sheeting is acceptable, provided there isn't excessive movement. Sand down painted sub-floors to eliminate paint and contaminants. Ensure all areas are securely nailed and are clean as well as dust-free. Prime timber floors with a primer or a Primer/grout additive to guarantee a strong bond with the flooring material.

4.5 Underfloor Heating

Underfloor heating systems on offer may utilize either a continuous wire heating element or a mesh heating element. Adhere to the manufacturer's guidelines for heating wire spacing. Ascertain the necessary layout and spacings, marking them on the floor.

Subsequently, distribute the heating element uniformly across the floor. Adjusting some wiring may be needed to achieve a suitable layout. Bear in mind, the elements:

should maintain a spacing of no less than 50 mm

should not overlap each other

should not be positioned beneath wall framing or in areas with floor fixings.

Affix the element securely using adhesive tape as directed by the manufacturer's recommendations

4.6 Wet Areas Membrane System

It's crucial to waterproof wet areas before proceeding with tiling. Timber floors have the tendency to expand and cause tile uplift, and may deteriorate over time if not initially waterproofed.

The "wet areas waterproof membrane" is a pathway to comply with the E3 building code and is suitable for most Substrates.

Refer to the [Code of Practice for Internal Wet-area Membrane Systems](#) for more information.

This Code of Practice only applies to work that an Applicator that has been certified by the Supplier has been engaged to perform. The waterproof membrane systems must be installed by or under the supervision of Installers who have been trained and certified by the Supplier.

For the environments where Wet-area Membrane Systems are used, please refer to the table below:

Substrate	Wet area membrane systems
Concrete-slab-on-Grade or suspended	Yes
H3 Treated plywood	Yes
H1.2 Solid Pinus / H1.2 Douglas Fir	Yes
Existing Solid Native Timber	Yes
Particle board / Oriented Strand board	No
Untreated Plywood or other subfloors	No

Note:

all waterproof membrane systems must be installed by or under the supervision of an installer certified by the supplier of the waterproof membrane system, working for a certified applicator.

4.7 Before Installation

Prime substrate with the waterproofing system's recommended primer, and fill the gap.

5. Layout Design and Positioning

- ✧ Consider the layout and design to ensure the arrangement of the tiles is as you desire, and starting from the center, gradually place the tiles following your design, ensuring a consistent spacing between each tile.
- ✧ Keep in mind that it's fine to mark the wall and floor with pencil as these marks will be covered by tiles. For floor tiles, arrange a few rows in each direction to get a visual on how they appear and how the various tiling areas transition into each other. When it comes to wall tiles, it's crucial to ensure you begin from a level foundation.
- ✧ Check the batch numbers on the boxes of tiles and where they differ, select tiles randomly from the boxes. If tiles are patterned, lay the tiles pattern-to-pattern as appropriate.

6. Installation

6.1 Responsibility

The flooring installer should conduct a thorough inspection for defects and damage on the flooring.

If a particular board or several boards are found to be unsatisfactory, please do not install them.

Upon completion of the installation, it implies that the installer has accepted the materials, and the flooring will not be subject to claim protection.

And the installer has the responsibility to follow this guide for installation, violating this guide will render the flooring ineligible for claim protection. If there are any questions, feel free to contact us.

6.2 Preparation

Start with an empty bucket, pour in some water and add the powdered adhesive. Mix the adhesive until it reaches the consistency of toothpaste. If it's too runny, add more adhesive; if it's too thick, add more water.

6.3 Dry Fit

Lay out some tiles dry on the floor or wall using your datum line as a reference to visualize the finished floor. Ensure the tiles are evenly spaced on every side of the wall, adjusting the datum line if necessary

6.4 Tile Installation

Apply adhesive between the datum line and the nearest wall using a trowel. Run a notched trowel through the adhesive to increase the adhesive's surface area.

Apply a small amount of adhesive on the bottom edge of the tile that aligns with the datum line.

Place the first tile in the adhesive and gently press it down to align with the datum line.

6.5 Tile Spacers:

Insert tile spacers between the tiles after laying a row to maintain straight grout lines. Use two spacers for each side of a large tile, ensuring a professional-looking result. Once the adhesive is dry, remove the spacers using needle-nose pliers.

6.6 Tile Cutting

Measure the distance between the laid tile and the wall, ensuring it is square to the wall. Mark the measured distance on a new tile, draw a line between the marks, and cut the tile using a tile cutter.

For drainage holes, mark the length and width of the drain on a tile, draw lines to mark the drainage hole, then use an angle grinder to cut out the square.

6.7 Continued Laying

Continue marking, cutting, and laying tiles to fill the floor space. Use a straight edge or level to ensure all tiles are flat or have the necessary fall for water drainage.

Remove and re-adjust any tiles that are not level with the adjacent tiles, adding or removing adhesive as necessary. Use a damp sponge to clean off any excess adhesive that may rise between the tiles.

6.8 Grouting

Mix the grout to a smooth consistency as per the packaging instructions. Use a grout float to apply grout diagonally across the tiles, filling the gaps.

6.9 Cleaning

Before the grout dries, use a damp sponge or cloth to clean off excess grout and adhesive. Once dried, buff off any remaining grout haze with a soft cloth.

6.10 Maintenance

Avoid walking on or placing heavy objects on the new tiles until the adhesive and grout have dried completely. Follow the manufacturer's guidelines for regular cleaning and maintenance.

6.11 Note

Don't overlook accounting for the space of the grout joints and a perimeter expansion joint. Typically, allocate 3-5mm for indoor tiles. For purchasing guidance, calculate the net area, then augment with an additional 10% tiles for square laying and 15% extra for diagonal laying. This should supply ample tiles for cutting and some extras.

The steps may vary depending on the project specifics and the type of tiles used. Consult with a professional or research additional resources if uncertain about any steps. Adhere to the manufacturer's instructions and local building codes for the best results.

This comprehensive guide amalgamates the instructions from both sets, providing a step-by-step approach to ensuring a successful tile installation project.

References

1. Code of Practice for Wet Area Membrane Systems,, 4th Edition published August, 2020 – By the Waterproofing Membrane Association Incorporated (previously the Membrane Group of New Zealand)
2. Wet Area Tile waterproofing (2009) – BU518 BRANZ
3. Good Practice Guide: Tiling – BRANZ
4. Bathroom floor tiles and heating – By Alide Elkink



Contact

Terry Shi +64 211990887

Michelle +64 210591393

Email: nzfloorco@hotmail.com

Email: nzfloorco@gmail.com

Email: Terry@floorco.co.nz