

Ceramic Tile Fixing Guide

SURFACE PREPARATION

1. **Surfaces** to be tiled must be firm, clean and free of dust, waxes and other contaminants.
2. **Dusty surfaces** must be primed with PRIMER AND GROUT ADDITIVE prior to tiling. (i.e. cement sheeting and gypsum plaster board).
3. **Brick and block** walls must be allowed to cure for a minimum of four weeks before tiling.
4. **Render/Screed** must be allowed to cure for seven days and finished to a semi-smooth finish with a wood float.
5. **Concrete** walls and floors must be allowed to cure for a minimum of four weeks before tiling. **Smooth concrete** must be mechanically abraded.
6. **Structural Timber Flooring.** Sand with a 40 grade dustless floor sander to remove the waterproof coating. Prime with PRIMER & GROUT ADDITIVE after sweeping thoroughly.
7. **Painted surfaces** must be roughened with a wire brush and flaking paint removed. PVA and water based paints are not a suitable surface for ceramic tiling and should be removed.
8. **Existing Tiles.** Roughen tiles by sanding or grinding. Wash surface with KEMCLEAN diluted 50/50 with water. Rinse thoroughly with clean water, allow to dry and prime with PRIMAX.
9. **Vinyl** (firmly adhered): Clean thoroughly, removing all polish and waxes. Roughen by sanding. Adhere tiles with KEMFLEX 2:1/ MONOFLEX.
10. **Laminated bench tops:** Roughen by sanding and adhere tiles with KEMFLEX 2:1.
11. **Bitumen:** We do not recommend any of our adhesives/products over this surface.

OIL, GREASE, RELEASE AGENTS

Remove excessive grease and grime with a scraper or wire brush. Degrease the surface with an industrial detergent e.g. one part Tri Sodium Phosphate (TSP) to 20 parts water solution or a caustic soda solution. Scrub the surface with a stiff broom and hose down thoroughly.

RENDER COAT To Level Uneven Masonry Surfaces

Apply a 1:3 cement : sand render approximately 10 mm thick to true uneven surfaces and finish semi smooth (to give a good mechanical key) with a wood float. Let cure for seven days before tiling.

FIXING TILES

Tiling to be done in accordance with Australian Standards AS3958-1. Apply dry tiles to the adhesive before it skins on the surface. Apply the adhesive using a (1) notched trowel, (2) solid bed or (3) buttering method. Never spot fix tiles. Press the tiles firmly into the adhesive using a slight twisting motion and check tiles occasionally (one in 20 tiles) to see that the tile is fully in contact with the adhesive. No voids are to occur under the tiles. Do not fix tiles with tight joints. A guide for gaps between tiles is internal tiles 2 to 4mm, external tiles 4 to 8mm. Surplus adhesive left on the face of the tiles must be removed before it sets.

Notched Trowel Method

Apply the adhesive as a screed then comb with the notched trowel. Do not apply more than a metre at a time. Australian Standard AS3958.1 requires notched trowel to be increased as the tile increases in size i.e. 200mm square tiles (8mm notch), 250mm square tiles (10mm notch), 300mm square tiles (12mm notch), 400mm square tiles (12mm notch and butter the back).

THIN BED – Use a 6mm notched trowel for surfaces that are basically flat (i.e. true to 3mm over a 2m length). Thin bed adhesive should be between 1.5mm to 3mm thick when the tile is adhered.

THICK BED – Use a 10mm to 12mm notched trowel for surfaces that have a greater than 6mm variations over a 2m length or use the solid bed or buttering application. Thick bed adhesives should be between 3mm to 12mm thick when the tiles is adhered.

Solid Bed Method

Work one square metre applying the adhesive to the substrate and make it true and level before bedding tiles.

Buttering Method

Butter the back of the tile evenly with adhesive slightly thicker than the required thickness. Press or tap the tile into position.

Irregular Backed Tiles and large tiles or slabs must be buttered flat or covered with adhesive before pressing into the adhesive ribs to ensure complete bond.

FIXING TILES THAT VARY IN THICKNESS i.e. Marble and Slate

Sort tiles into four different thicknesses and lay the thickest tile first. If a flat surface is required build the thinner tiles up with a thicker bed. A natural fall can be obtained by using the same thickness bed.

GROUTING

Grout after 48 hours. Use KEMGROUT mixed with water for normal applications. When greater mould resistance and a harder more durable grout is required, mix PRIMER AND GROUT ADDITIVE 50:50 with water. Where hygiene and resistance to chemicals is a consideration grout with EPEGROUT. Flexing floors should be grouted with KEMGROUT mixed with FLEXIBLE GROUT ADDITIVE. Remove surplus grout regularly with a wet rag before it hardens on the tile surface.

MOVEMENT OR EXPANSION JOINTS

To allow for tile expansion leave a 5mm minimum gap around the perimeter of floors and in large areas at 5 metre intervals. Expansion joints should be made at vertical corners and coincide with joints in the base slab and around piers, columns etc. Expansion joints must be free of dirt and adhesive droppings and be filled after the adhesive has cured with a flexible sealant.