

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/laitance** must be mechanically abraded.
6. **Timber or steel** framed construction must have noggins at 450mm maximum centres in the areas to be tiled. Cladding to be fixed in accordance with manufacturers instructions.
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 must be removed.
8. **Tiled surfaces** must be firmly adhered, washed to remove contamination and tiles must be roughened by sanding.
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.
12. **Glass Mosaics:** Fix with ULTIMA or MOSAICBOND.
13. **Epoxy Resin coatings** must be thoroughly roughened by sanding, grinding or shot blasted.

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.

Ceramic Tiling Guide

FIXING GUIDE

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, terracota tiles 8 to 12mm. Surplus adhesive left on the face of the tiles must be removed before it sets. Improve the adhesion to difficult substrate by using PRIMAX. Brush apply to substrate before fixing tiles. Use a flexible adhesive on all external tiling and surfaces subject to movement, vibration and cracking.

Notched Trowel Method

Apply the adhesive as a screed than comb with the notched trowel. Do not apply more than a metre at a time. Use a 6mm notch for wall tiling and a 10 mm notch for floors.

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.

Thin Bed Fixing

200x200	Requires.....8mm	Notched Trowel
250x25010mm	Notched Trowel
300x30012mm	Notched Trowel
400x40012mm	Notched Trowel

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Acceptable Coverage

Internal Residential Walls.....	65%
Residential Floors.....	80%
Wet Areas.....	90%
Swimming Pools.....	90%
External Walls.....	90%
External Floors, Decks and Roofs.....	90%

A copy of the A.S 3958.1-2007 can be downloaded from www.standards.org.au

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. Choose the darkest grout that colour matches the tile. Use KEMGROUT mixed with water for normal applications. When greater mould resistance and a harder more durable grout is required, add PRIMER AND GROUT ADDITIVE in place of water to the grout. Where hygiene and resistance to chemicals is a consideration grout with EPEGROUT. 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.