

# Green solutions for industry



## Techbond 14

### Characteristics

- Techbond 14 is a premium grade, rubber modified, flexible off white cement base tile adhesive.
- It is designed for bonding all types of ceramic, stone and mosaic tiles with the exception of light coloured and green marble onto a variety of substrates like concrete, render, rendered brickwork, block work, Gyprock, plasterboard, fibre cement and appropriately prepared flooring boards.
- It can be used internally or externally on wall and floor surfaces.
- Techbond 14 can be used for fixing low porosity tiles.
- Techbond 14 can be used to fix tiles over existing tiles as long as the existing tiles have been roughened and cleaned with sugar soap then coating with prebond is recommended.
- Techbond 14 can be used to fix tiles over most waterproofing membranes. However it is advisable to contact the manufacturer prior to commencing.
- Techbond 14 is fast setting, so tiles can be grouted 6-8 hours @ 20C after the completion tiling.

### Preparation

- Techbond 14 is suitable for use over 7 days old concrete which has a woodfloat finish.
- All rendered surfaces must be allowed to cure for at least 24 hours prior to commencing tiling.
- The maximum variation in the plane of the concrete must not exceed 5mm in 3 meters for floors and 2 meters for walls.
- Steel trowelled finished concrete surfaces must be mechanically or chemically abraded prior to commencing tiling.
- Structural Particle Board used as a flooring material must be a minimum of 19mm thick, fixed in accordance with the manufacturer's instructions and the relevant standards and must be sanded to remove surface resins prior to commencing.
- Fibre Cement sheet when used as an underlay or wall material must be a minimum of 6mm in thickness. For heavy duty commercial applications it should be a minimum of 9mm thick and all should be fixed in accordance with the manufacturer's instructions and the relevant standards.
- Compressed Fibre-Cement sheets when used as a floor substrate must be 15mm thick, and when used a wall substrate must be 9mm thick and must be installed in accordance with the manufacturer's instructions and the relevant standards.
- Ensure all surfaces are sound, dry and free from excessive movement, oil, dust, grease, wax, curing compounds, release agents, and any other loose contaminating materials.
- All porous surfaces like concrete, screeds, fibre cement sheet etc. should be primed using RLA Uniprime.
- When applying the primer onto a floor surface it is recommended to firstly pour some primer in a section then spread primer using a broom, brush or roller. Then continue this method of application until the entire area is primed. Note: this method of application ensures a thorough coat of the primer on the surface.
- Allow the primer to dry for approximately 30-40 minutes at 20C prior to commencing tiling.

### Expansion/Movement Joints

Expansion and movement joints must be provided to allow for movement between adjacent building components.

They should be as follows:

- Over existing joints in the substrate.
- Where two different substrates meet. e.g.: Timber and Concrete.
- Around fixed elements in the floor e.g.: Columns.
- At internal vertical corners.
- Around the perimeter of the floor and at doorways.
- In internal floors where any dimension exceeds 9m or 6m of subjected to sunlight.
- In external floor where any dimension exceeds 4.5m.
- On wall surfaces at story heights horizontally and approximately 3m-4.5m apart vertically. Ideally they should be located over movement joints in the structural columns (the above points are in accordance with AS3958.1-2007).
- Movement joints should go right through the tile adhesive bed to the background and kept free from dirt and adhesive droppings. Movement joints must not be less than 6mm and not wider than 10mm. The movement joints must be filled with a flexible sealant like silicone.

### Mixing

- The mixing ratio of Techbond 14 is 20kg of powder to 8 litres of water.
- Pour 8 litres of clean water into a drum then gradually add the Techbond 14 while mixing continuously until a smooth lump free mix is obtained. Always add powder to liquid.
- Allow the mix to stand for 5 minutes, re-stir, and then apply the adhesive onto the substrate.

## Application

- All tiling should be carried out in accordance with Australian Standard AS3958.1-2007.
- Once the surface has been appropriately prepared in accordance to RLA's instructions then apply the adhesive onto the substrate using an appropriate notched trowel.
- For floor tiling use a 10mm x 10mm square notched trowel for tiles up to 300mm x 300mm. For tiles 300mm x 300mm and larger use a 12mm x 12mm square notched trowel. For mosaic tiles use a 6mm x 6mm square notched trowel.
- For all wall tiling use 6mm x 6mm square notched trowel for tiles up to 150mm x 150mm. for tiles larger than 150mm x 150mm use a 10mm x 10mm square notch trowel.
- Techbond 14 should be applied onto the substrate at a rate of 1m<sup>2</sup> at a time. Application rates greater than this can result in adhesive skinning before the tile are laid into it.
- Once the adhesive is applied onto the substrate ensure that it does not skin prior to bedding the tile into it. Once the adhesive skins do not lay tiles onto it, but remove it and apply fresh adhesive.
- When placing the tiles into the adhesive press them in by a sliding action. Ensure no voids occur and full adhesive is under the tiles.
- For the tiles with lugs, grooves or uneven backing it may be required to butter the back of the tile with adhesive in addition to trowelling the adhesive onto the substrate.
- The final bed thickness of the adhesive should be at least 2mm for wall tiling and 3mm for floor tiling.
- Once the tiling is completed do not disturb the tiled surface for at least 6-8hours at 20°C.

## Clean up

- Excessive adhesive from the face of the tiles can be cleaned up with a damp cloth while the adhesive is still wet.
- Adhesive that has oozed out into the grout joint must be raked out with a knife or spatula etc.
- Tools and other equipment can be cleaned up using water while the adhesive it still wet.

## Coverage

- A 20kg bag of Techbond 14 will cover approximately 14-16m<sup>2</sup> using a 10mm notched trowel.

## Grouting application

- Grouting application can commence 24 hours after the completion of tiling.
- After grouting allow to cure undisturbed for 24 hours at 20C before putting area into service.

## Packaging and Shelf Life

- Techbond 14 is available in 20kg bags.
- A bag of Techbond 14, when stored in a cool, dry environment, and is stored above ground level, will have a shelf life of approximately 12 months.

## Handy Tips

- Do not apply Techbond 14 in temperatures above 40°C or below 5°C.
- Techbond 14 cannot be used for fixing tiles directly onto tongue and groove timber flooring.
- Techbond 14 cannot be used for fixing tiles in permanently immersed situations like swimming pools, spas etc and permanently damp concrete slabs like those present around pools surrounds etc.
- For applications /situations not mentioned in these instructions please contact your nearest RLA office.
- Techbond 14 being cement based is alkaline in nature and therefore may cause dermatitis. It is recommended that applicators wear PVC gloves or similar and safety goggles.
- For a full MDS on this product please contact your nearest RLA office.

## Technical data

Properties	Results
Apperance	Off White Powder
Bulk Density	0.77 +/-0.05
Open Time	30 minutes @20°C
Dry time @ 20°C	Appox 8 hours
Pot Life	1 hour @20°C
Coverage per bag	14m <sup>2</sup>
Complies with AS4992.1:2007 - C2S1TE	

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