



By Appointment to H.M. the Queen, Building Material Manufacturers  
Sovereign Chemicals Limited, Barrow in Furness



# Tile Installation Products Range

Cost-effective solutions for premium quality pro-tiling results.



## SOVEREIGN

The Gold Standard in Building Products

# Powdered Adhesives, Grouts and Levelling C

With the introduction of increasingly large tiles and the greater use of porcelain and natural stone tiles, the use of cement-based adhesives has increased steadily in the UK. These heavier tiles demand a high specification adhesive. Sovereign have been at the forefront of developing SPFs (Single Part Flexible Adhesives) for over a decade. The Company's high performance adhesives such as Sovereign Porcel-Flex are ideal for fixing a broad spectrum of tile types to a wide variety of substrates. In addition to SPFs, Sovereign are still a leading manufacturer of high quality traditional adhesives, such as Quick-Fix and Standard Tile Fix. Whatever your tiling project, Sovereign provides all the chemical products you need to achieve superb results. Sovereign's market leading range encompasses primers, levelling compounds, adhesives, grouts, silicone sealants and surface protection.



## Porcel-Flex and Porcel-Bond

Sovereign Porcel-Flex is the number one adhesive of choice because it is so versatile. It can be used inside and out on both walls and floors. Its added adhesion promoter ensures reliable fixing to internal marine grade ply. Suitable for fixing large format tiles, porcelain, fully vitrified and natural stone, making it the obvious choice to have around.

Sovereign Porcel-Flex is available in grey and white both of which are further supplied as either a rapid set version where speed of turnaround is paramount or standard set with a long pot life making life easier for the pro tiler. Sovereign Porcel-Bond can be specified for porcelain and natural stone tiling on to concrete with no under floor heating

## Tile-Fix

Standard Tile-Fix is Sovereign's recommended adhesive for fixing tiles below the waterline in applications like swimming pools, plunge pools and communal showers. Used in conjunction with the Company's SBR, Standard Tile-Fix has exceptional water resistance and shows superb adhesion to a wide range of tiles and backgrounds.

## Quick-Fix

Sovereign's Quick-Fix is a rapid setting adhesive for fixing tiles to rigid walls and floors, making it the perfect solution for concrete, brick and rendered applications. Grouting can be carried out after just two hours, making it ideal for kitchen and bathroom floors.



## Two Part Flexible Adhesive

Sovereign Two Part Flexible Tile Adhesive is the Company's highest specification tiling product. This high-tech blend of cement and crumb rubber is supplied with a liquid flexibilising agent. Ideal for all tile types, whether internal or external, when mixed, Sovereign Two Part Flexible Tile Adhesive provides supreme adhesion, even on the most problematic to tile backgrounds, such as metal and timber.



# Compounds



## Flexible Anti-Mould Grout

Sovereign Flexible Anti-Mould Grout features a strong, effective in-built fungicide to minimise mould growth, even in the most demanding showers and wet room situations. Its added powder polymer also makes it ideal for use on board materials that may be subject to vibration and seasonal movement, such as timber sheets, plasterboard and tile backer board. This hard wearing, water resistant grout is ideal for use in power showers, on floors and external applications. Available in white, limestone, ivory, charcoal, grey and sandstone.

## Floor Tile Grout

Sovereign Floor Tile Grout is a traditional sanded grout for both internal and external use in joints from 3mm up to 20mm wide. When mixed it forms a semi-flowing paste, ideal for use on horizontal surfaces, however where required Sovereign Floor Tile Grout can also be mixed to a thicker consistency suitable for grouting wall tiles. When gauged with Sovereign SBR, Sovereign Floor Tile Grout is also suitable for use in swimming pools.

## White Tile Grout

Sovereign Wall Tile Grout is a super-fine joint filling compound for narrow joints up to 4mm wide. It cures to form an incredibly smooth surface in both internal and external tiling applications. When used in situations requiring constant immersion water, such as swimming pools, it must be mixed with a dilute solution of Sovereign SBR.



## Levelling Compounds

Preparation of background prior to tiling is just as important as the tiling itself. Sovereign provides a range of premium quality floor preparation products that make high quality tiling results much easier. Of course the truer the surface to be tiled, the easier and faster the installation is and the less adhesive used. Where concrete bases are uneven, or floor levels need to be raised slightly then, Sovereign FLC is recommended. If a timber floor is out of level, then Sovereign's Flexible Levelling Compound is the solution. Sovereign High Tech FLR levelling compound is so hard it does not even need tiling! It will comfortably take traffic on its own, but is designed for preparing heavy duty areas like showrooms and factories prior to tiling or can simply be painted with Sovereign Epoxy Floor Paint.



# Ready-Mixed Wall Tile Adhesives and Ancillia

Ready-mixed tile adhesives have formed the mainstay of ceramic wall tiling for decades and Sovereign adhesives have been used by professional tilers to fix hundreds of thousands of square metres of tiling all over the world. Sovereign's ongoing development work has resulted in a new breed of ready-mixed adhesives that answer the challenge of a broad spectrum of modern tiling. Unlike the past where traditional tiling could rely on a smooth, hard, plaster substrate, increasingly tiles are being fixed to non-rigid backgrounds.

Today new timber-framed construction methods often require tiles to be fixed to timber, plasterboard and other sheet materials. Sovereign met the challenge of these flexible materials with Gold Star, a white, water-resistant adhesive that remains permanently flexibly after curing, enabling it to adhere effectively in areas of vibration or during the seasonal movement of less dimensionally-stable backgrounds. Of course, Sovereign also still offer high quality traditional paste adhesives such as Grip Master and Super Grip Master for less demanding ceramic tiling situations.

## Grip Master

Sovereign's Grip Master and Super Grip Master products are traditional ready-mixed paste adhesives for fixing porous bodied tiles to sound, rigid and absorbent backgrounds. The high-bodied viscosity of these adhesives makes spreading them very easy indeed, whilst maintaining a high level of grip to prevent slippage during drying. Where that little extra grab is needed, Super Grip Master offers a slightly thicker consistency. Both Grip Master adhesives are suitable for dry or low humidity applications and conform to BS EN 12004 D1TE.



## Waterproof Tile Adhesive

Sovereign Waterproof Tile Adhesive is exactly what it says it is; when dry it can withstand high levels of humidity and regular water contact without loss of grip. As a result, Waterproof Tile Adhesive is ideal for fixing wall tiles in demanding situations like shower enclosures with power showers. This adhesive has a very sticky nature, giving it a tenacious hold on tiles that makes it Sovereign's recommended choice for tile-on-tile applications. Conforms to BS EN 12004 D2.

## Stone Sealing Products

Natural stone tiles, such as marble, limestone and travertine, are ever-more popular. They provide a beautiful finish, but are porous, making them subject to liquid staining. You can protect the investment in premium quality natural materials by sealing them with Sovereign Stone Sealer. This clear, invisible penetrating sealer repels staining from both oil and water-based liquids. Sovereign also manufacture a specialist sealer for slate; Sovereign Slate Sealer.





# ry Products



## Gold Star

Gold Star is Sovereign's premium paste adhesive. Gold Star offers superior bond strength, even when subjected to prolonged water contact. The bright white product remains flexible when dry, making it the adhesive of choice when tiling timber and other board materials. Gold Star can be used to fix tiles on many different backgrounds and its excellent drying profile makes it particularly suited to fixing larger format tiles. This high specification product exceeds the requirements of BS EN 12004 D2TE.



## Fix'N'Grout

Sovereign Fix'N'Grout is a quick and easy way to carry out smaller tiling jobs, making it ideal for the DIY tiler. Its water resistance means it is suitable for use in most interior tiling applications, whilst its bright white formula and fungicidal protection ensure it can also be used to fill the grout joints around tiles. Conforms to BS EN 12004 D2.



## Sanitary Grade Silicone

The importance of a good seal around sanitary ware can never be overstated. Sovereign Kitchen and Bathroom Sanitary Grade Silicone is a premium quality 100% silicone joint sealant that provides exceptional adhesion in all typical applications, including tiles, sinks and shower trays. Sovereign Kitchen and Bathroom Sealant also includes a powerful biocide to keep tiling looking better for longer.



## The Watertite System

Today, professional tilers are increasingly expected to fix tiles to moisture-sensitive backgrounds like gypsum plaster and plywood. In their basic form neither of these surfaces are suitable backgrounds for tiling in damp areas, such as showers and wet rooms, as they rapidly deteriorate in damp conditions.

However there IS a solution to this increasingly common problem; Sovereign's Watertite. This ready-mixed, liquid waterproof membrane is easily applied with a brush or roller and, with just two coats, once cured is impenetrable to water.

Watertite protects sensitive backgrounds and prevents leakage into adjoining rooms. The Watertite system also includes lengths of flexible tape to bed into the wet compound, reinforcing joints and changes in angle, such as wall and floor intersections, that require extra protection. Watertite collars for inlet and waste pipes are also available.

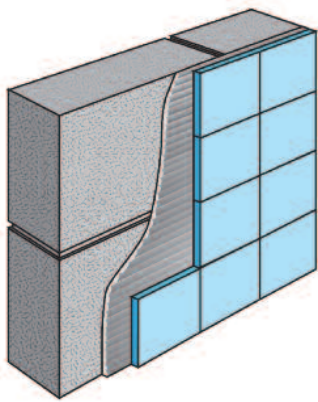
Sovereign market the Watertite System as a handy kit comprising 5 litres of compound, a paint roller for application, mixing bucket, tape, plus 1m<sup>2</sup> of fleece for base and fleece collars for pipework. The kit contains sufficient materials to do a corner shower with a square base of up to 1m x 1m. Once Watertite is dry, Sovereign's Porcel-Flex is the ideal partner product for affixing tiles.

# Wall Tiling Guide

The following are some tiling basics which provide some excellent tips. More in-depth information is available from Sovereign Chemicals' Technical Department. All pro-tilers should be conversant with BS5385, all installations should be in accordance with this standard.

## Preparation

Before beginning a tile installation, it is important to consider a variety of factors, such as type of background/substrate, the end use of the area being tiled, and the type and the weight of the tiles being used. These issues will play a key role in the correct choice of adhesive and grout for the project. Several types of adhesive are available, choosing the right one is of utmost importance if the tiling is to remain well adhered across the range of conditions it will face.



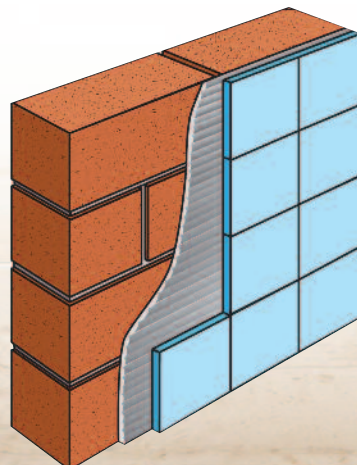
At the outset, the wall must be checked for trueness and its ability to support the weight of tiles, adhesive and grout to be used. It should be tested with a straight edge to ensure it is sufficiently true for thin bed fixing; tile adhesives are designed to bond tiles and are not intended for use as a filler to correct significant unevenness in a wall. If walls are out of true, they should be corrected using an appropriate technique such as replastering or dry lining.

## Maximum Weight

Every background type has a maximum amount of weight it will support, this should never be exceeded. A common example is skim plaster, which can accommodate up to 20kg/m<sup>2</sup>. By comparison bare plasterboard can carry around 32kg/m<sup>2</sup>. Other materials, such as masonry and tile backer boards, can support even greater weights. Tiles should never be applied to emulsion-painted walls, as these can soften with the water contained within adhesives, substantially weakening a bond to a surface that is already unable to support the weight of tiles.

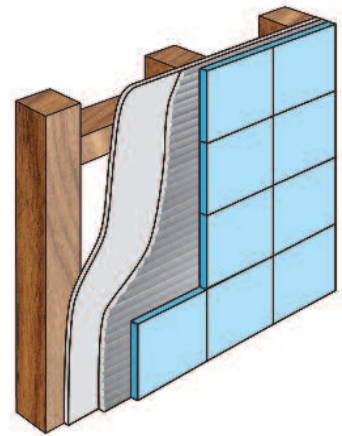
## Biscuit-Backed Tiles

Biscuit-backed tiles of up to 300mm square can be fixed with ready-mixed wall tile adhesives, such as Sovereign's Grip Master or Gold Star. Tiles larger than this, or of low porosity, are best fixed with a cement-based adhesive. This is because paste adhesives dry by evaporation of water from around the joints. Larger tiles can often trap the water in ready-mixed adhesives resulting in very slow drying times. Conversely, cementitious adhesives cure through chemical reaction, so do not pose the same problems. When using cement adhesive on plaster or board, it is important to fully seal the walls with several dilute coats of Sovereign SBR. This coating must be allowed to dry thoroughly before tiling.



## Tiling on Sheet Materials

When tiling on sheet materials such as plywood, Sovereign Gold Star should be used since it remains flexible after drying. In wet areas Sovereign Gold Star or Waterproof tile adhesives are recommended. In damp environments moisture-sensitive backgrounds such as plaster or timber are best replaced where possible with water-resistant equivalents, such as tile backer boards or cement render. If this is impractical, the background should be waterproofed with Sovereign Watertite.



## Adhesive Application

Initial adhesive application should be carried out with the flat of a trowel, and then comb through with a notched trowel. A 3 or 4mm notch should be used for mosaics, and a 6mm notch for other wall tiles. Bed the tile very firmly into the adhesive with a twisting action to ensure good contact. A minimum contact area of 75% should be achieved, rising to fully 100% when tiling wet areas.

## Does and Don'ts

DO NOT 'dot and dab' adhesive onto tiles or walls as this can result in an excessive thickness of adhesive being applied, resulting in shrinkage, stress on the tiles and ultimately failure. It will also increase drying time and the area of contact may not be sufficient to support the tile weight. Ready-mixed adhesives should have a maximum bed thickness of 3mm.

Never tile into corners or directly up against fittings, door casings and the like; a gap of 5-10mm should be left and filled-off with a flexible sealant to allow for expansion. For large installations movement joints in the tile bed are also required and should be installed in accordance with BS5385 standards.

Allow the adhesive sufficient time to harden before grouting, this is a minimum of 24 hours for ready-mixed adhesives and can be longer if the tiles are large or bonded to low porosity backgrounds. Rapid setting cement-based adhesives, such as Porcel-Flex and Quick-Fix, can usually be grouted in as little as 2 hours.



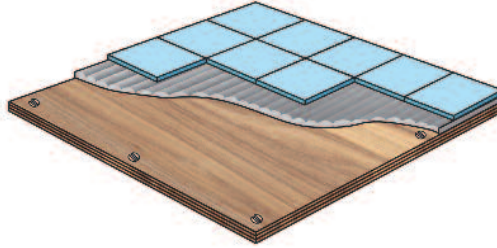
# Floor Tiling Guide



As with wall tiling, the first considerations of floor tiling must be to the background to which the tiles are to be fixed and the environment the installation will have to withstand.

## Tile Background

Since floor tiles need to support pedestrian traffic; and sometimes in the case of a car showroom, vehicles; it is important that the background is stable and clean before tiling commences. There are numerous background types that can be tiled, some require extensive preparation prior to tiling. If floors are uneven, or if levels need to be changed, then this should be done prior to tiling with one of Sovereign's floor levelling compounds; tile adhesives should never be used to make up levels.



## Tiling over Timber

Probably the most difficult substrate to tile is timber due to its flexibility and dimensional instability, depending on its moisture content. Wherever possible it is best to either replace or overlay timber with tile backer board. When

replacement is not possible, the timber must be rigidly braced, with noggins often needed to be placed in between joists. The timber should be screwed to the joists and noggins and then over-boarded with marine grade ply. The thickness of the ply required will depend on the floor in question, but must be an absolute minimum of 12mm, though can be up to 21mm.

The ply should be sealed on the reverse and edges with a waterproof compound such as Sovereign SBR, or a coat of varnish. The side to be tiled does not need priming, but WILL require wiping with a cloth to remove the fine sawdust that will be present on the surface. Boards should be laid in a staggered pattern, and should not be butted-up tightly to each other; allowing an expansion gap of around 1mm. The marine ply should be screwed in place with stainless steel screws at 300mm centres.

If traditional floorboards are to be tiled, this can be facilitated by bracing the boards with noggins and then screwing the boards down. Tiles can then be fixed with Sovereign Two Part Flexible Tile Adhesive. In both cases, the first rule to remember is that no matter how flexible a tile adhesive may be, the fact remains that the tiles will always be rigid.

If a timber floor moves more than either the tiles or adhesive will accommodate, this WILL result in the tiles and/or grout cracking or debonding. It is also worth noting that larger tiles on timber floors represent an increased debonding risk, meaning it may be worthwhile opting for smaller tiles that will accommodate a greater degree of movement.

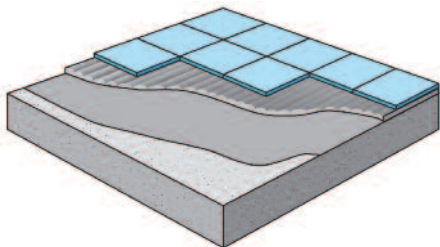
## Tiling on Concrete

When tiling concrete it must have matured sufficiently to ensure shrinkage resulting from drying has ceased; therefore concrete must be at least six weeks old before being tiled. Concrete may also feature a weak layer of surface laitance that, if tiled, can result in a weak bond. Since this laitance layer is also very porous, it can also often lead to the adhesive drying quickly giving a poor bond to the tile. In the case of old concrete floors, the problems are usually related to contamination by dirt or oily materials. If contamination is present, the floor should be thoroughly cleaned prior to tiling. Any of Sovereign's powder adhesives can be used on concrete,

the product best suited depends on the location, type of tile and whether under-floor heating is present.

For plain concrete floors and standard tiles Sovereign Quick-Fix or Standard Tile-Fix may be used. Where under-floor heating is present or

porcelain/natural stone tiles are to be used, Sovereign Porcel-Flex is recommended. White adhesive should be selected for fixing pale-coloured stone or with pale-coloured grouts. Power-floated concrete requires mechanical preparation prior to tiling.

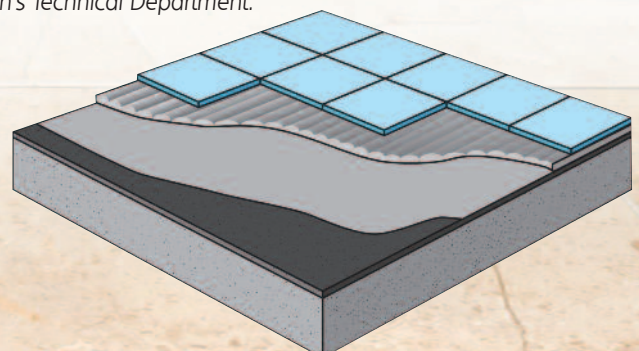


## Anhydrite Screeds

Anhydrite screeds are becoming more common, and these pose their own particular set of problems when it comes to tiling. The chemical composition of anhydrite means it is incompatible with cement-based adhesives so screeds of this type must be completely sealed with a water-resistant primer like Sovereign's SBR before tiling. The moisture content of anhydrite screeds must always be tested to ensure they are fully dry before tiling. If a moist anhydrite floor is tiled it will fail. Mechanical preparation prior to tiling is also normally required for anhydrite screeds, a full specification for tiling this type of floor can be obtained from Sovereign's Technical Department. Once the anhydrite screed has been prepared, tile adhesive selection is the same as for concrete.

## Adhesive Application

Floor tile adhesive is best spread with a 10mm round notched trowel, but where a thinner bed is required, a 6mm notch can be used. The most important consideration is ensuring the tiles obtain full contact with the adhesive, so that no voids remain under the tiles. Other surfaces, such as mastic asphalt, stainless steel or existing tiles, are also often required to be tiled. Tiling these awkward surfaces IS possible with assistance from Sovereign's Technical Department.



## Sovereign Floor Tiling Guide

Adhesive Type	Screed	Heated Screed	Anhydrite Screed*	Heated Anh. Screed*	Overlaid T&G	T&G	Rigid Vinyl Tiles	Unglazed Tiles	Glazed Tiles**	Floor Paint
Standard Fix	●	●	●	●●	●	●	●●	●	●●	●●
Quick Fix	●	●	●	●●	●	●	●●	●	●●	●●
Porcel-Bond	●	●	●	●●	●	●	●	●	●	●
Porcel-Flex Rapid	●	●	●	●	●	●	●	●	●	●
Porcel-Flex Std	●	●	●	●	●	●	●	●	●	●
Two Part Flex	●	●	●	●	●	●	●	●	●	●

## Sovereign Wall Tiling Guide

Adhesive Type	Plaster	Plaster board	Brick	Block	Render	Dense Brick or Block	Concrete	Timber	Tile Backer Board	Tile**
Grip/Super Grip	●	●	●	●	●	●	●	●	●	●
Waterproof	●	●	●	●	●	●	●	●	●	●
Gold Star	●	●	●	●	●	●	●	●	●	●
Standard Fix	●	●	●	●	●	●	●	●	●	●
Quick Fix	●	●	●	●	●	●	●	●	●	●
Porcel-Bond	●	●	●	●	●	●	●	●	●	●
Porcel-Flex Rapid	●	●	●	●	●	●	●	●	●	●
Porcel-Flex Std	●	●	●	●	●	●	●	●	●	●

● Suitable ● Prime with Sovereign SBR ● Sovereign SBR required as an admixture ● Not suitable ● Not recommended

\* Contact Sovereign before commencing to obtain full specification. \*\* Tiles should be scored to provide a key. Use white version of adhesive for pale coloured tiles.

Coverage Rates (metres squared)	Trowel Notch Size	4x4mm	6x6mm	10mm Round
16kg Ready-mixed adhesives		10	8	n/a
20kg Powder Adhesives		9	6	5
15kg Two Part Flexi Adhesive		n/a	n/a	4
Wall Tile Grout	Approx 0.2 – 0.4kg/m <sup>2</sup> depending on tile size and joint width			
Floor Tile Grout	Approx 0.5 – 1.0kg/m <sup>2</sup> depending on tile size and joint width			

## Notes

1. Backgrounds must be sufficiently strong to support the weight of tiles, adhesive and grout. For example: Plaster = 20kg/m<sup>2</sup>, WBP Plywood = 30kg/m<sup>2</sup>, un-skimmed plasterboard = 32kg/m<sup>2</sup>.
2. Large format tiles (>300mm) should be fixed with a rapid-set cement based adhesives.
3. Low porosity/natural stone tiles should be fixed with a polymer modified adhesive.
4. External timber must not be tiled.
5. Pale, translucent tiles or those susceptible to cement staining should be fixed with Porcel-Flex White or Two Part Flexi White.
6. Gypsum plaster must be fully sealed with Sovereign SBR prior to tiling with cement based adhesives.
7. Plaster, plasterboard and timber are not suitable backgrounds to receive tiling in areas subject to regular wetting. In such instances the backgrounds should be waterproofed with Sovereign Watertite prior to fixing tiles with Porcel-Flex.

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