



**Description:**

Sterling® Tilefix Silver is a cement based polymer modified powdered tile adhesive specifically designed for bonding all types of ceramic tiles and stone on most common construction substrates for internal and external applications using the thin bed method. Sterling® Tilefix Silver is supplied in the form of white or grey powder that is ready to use with the addition of water to provide a good workable and easy to apply tile adhesive. Suitable for internal and external use, and bonds to most building substrates such as concrete, cement screeds and render, existing ceramic tiles, dense block work and unskimmed plasterboard.

**Application:**

- Suitable for exterior and interior applications.
- Can be used in wet areas such as bathrooms and kitchens.
- For wall and floor applications.
- On concrete, cement based mortar, screed and plaster.
- On drywall such as gypsum boards and fibre cement boards.

**Features:**

- General purpose can be used in wet or dry conditions, internally or externally.
- Good bond strength to all common substrates.
- Easy to apply, non-sag with good workability.
- Economical.
- Ready mixed, just requires the addition of water.

**Typical Properties at 25°C:**

Colour	White or grey
Aspect	Free Flowing Powder
Fresh wet density	1.75 ± 0.1 g/cm <sup>3</sup>
Bed Thickness	upto 3-6 mm
Walls*	Use 6 mm X 6 mm square notch trowel
Floors*	Use 12 mm X 12 mm square notch trowel
Water/powder mixing ratio (pba)	0.25- 0.27 by weight
Pot Life	2 hours
Setting Time	24 hours
Open Time: ISO 13007-2,4.1	20 minutes
Tensile adhesive Strength after dry storage,(28 days)- EN 1348	≥ 0.5 N/mm <sup>2</sup>
Tensile adhesive Strength after water Immersion -EN 1348	≥ 0.5 N/mm <sup>2</sup>
Tensile adhesive Strength after heat ageing-EN 1348	≥ 0.5 N/mm <sup>2</sup>
Slip: ISO 13007-2,4.2	≤ 0.5 mm
VOC: ASTM D2369	< 10 g/ltr (complies with LEED)
* All above properties have been tested at water powder ratio 0.26 and controlled condition as per IS 15477:2004	

**Application Instructions:**

**Substrate Preparation**

All surfaces must be clean, dry and free from dust, oil, grease, paints or any loose material. Concrete and cement based substrates must be sufficiently cured and dimensionally stable. Allow time for shrinkage and structural strain movements. Gypsum boards, plaster boards, anhydrite screeds, or any highly absorbent cement based substrates such as hollow blocks and foam concrete must be sufficiently dry and free from dust. These substrates must be primed with a slurry bonding coat\* Slurry bonding coat is prepared by mixing 2 parts of Portland cement to 1 part of TechnoCrete® AcrylBond. Brush on the base immediately before applying the adhesive Sterling® Tilefix Silver.

**Surface considerations**

New Cement Sand rendering/Brick/Block Wall- Before commencing tiling, allow plastered surface to air dry for at least 2-3 weeks. New Concrete Bases- Before commencing tiling, ensure that bases have been allowed to air dry for at least 4 weeks. Existing Concrete/Screed Bases- Cut out all loose or hollow portions and make good with a 1:3 cement : sand mortar applied over a slurry bonding coat\* and let it cure and dry for 7 days. Slurry bonding coat is prepared by mixing 2 parts of Portland cement to 1 part of TechnoCrete® AcrylBond.

Ceramic/Vitrified & Fully Vitrified Tile/Terrazzo/Hard Natural Stone Bases- Check that existing finish is firmly adhering to the base. Remove any loose or hollow sounding tiles and reprofile with a 1:3 cement: sand mortar over a slurry bonding coat\* Slurry bonding coat is prepared by mixing 2 parts of Portland cement to 1 part of TechnoCrete® AcrylBond. Brush on the base immediately before applying the adhesive. Tiles should not be placed over expansion and contraction joints, these joints should be filled with a suitable flexible sealant from the \*STIPL TechnoSeal® range.

**Mixing**

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. 7.5- 8.1 litres of clean fresh water for each 30 kg bag (water/powder ratio of 0.25- 0.27 by weight) should be added to a clean container to obtain a slump-free consistency. The powder is then added slowly to the water while mixing continuously at low speed (400- 600 rpm). Mixing time should be continued for 3 minutes until a uniform consistency and free of lumps mixture is obtained. Allow a slake time for 2-3 minutes, then remix for additional 1 minute without adding any more water.

The adhesive is immediately ready-for-use and has a pot life of 2 hours @25°C. No further water should be added. Where mixing by weight is not possible, volume mixing can be carried out at site in the ratio of 1:3 (water: powder). In case of using TechnoCrete® AcrylBond: Use 1.5 liter of TechnoCrete® AcrylBond with 6-6.60 liters of water and 30 kg of Tilefix Silver.

## How to Apply:

- Spread not more than the area which can be tiled within the open time of the adhesive.
- Apply a thin layer of the adhesive onto the substrate using the flat edge of the trowel.
- Comb the adhesive with a suitable notched trowel horizontally to achieve a bed thickness of 2.5-3mm.
- Place the tiles with firm pressure to ensure proper contact with the adhesive.
- Press the tiles firmly into position with a slight twisting action, checking periodically that good contact is maintained with the back of each tile.
- Leave no voids behind tiles. Tiles should be fixed within 20 minutes of adhesive being applied, depending on the porosity of the surface and atmospheric conditions.
- Tiles can be adjusted up to 10-15 minutes after fixing. Touch the adhesive ribs periodically and if a skin has formed, remove the adhesive and apply a new layer.
- Leave adequate joints between individual wall and floor tiles unless self-spacing tiles are used.
- Clean off surplus adhesive from the tile face and between joints
- It is always better to work in a manageable area that can be tiled within the open wet time of the adhesive.
- Leave the tiled surfaces for 24 hours before grouting.

## Coverage:

Approximately 3 kg/m<sup>2</sup> using a 6mm square notch trowel, Approximately 4.1 kg/m<sup>2</sup> 8mm square notch trowel. Approximately 5.3 kg/m<sup>2</sup> using a 10mm square notch trowel. \* The consumption rates of dry powder are based on lab trials and might vary subject to variation of subfloor level and surface regularity. The reverse profile of the used ceramic and the surface structure of the substrate to be covered are also important factors, besides the tile size, for the consumption of mortar.

## Standards:

Sterling® Tilefix Silver complies with ISO 13007-1 and BS EN 12004 as a normal cementitious tile adhesive with slip resistance (C1T) & ANSI A118.1 for shear strength requirements.

## Packaging:

Tilefix Silver is supplied in 30 Kg HDPE bag.

## Storage & Self Life:

Tilefix Silver has a shelf life of 12 months if kept in dry store in its original packaging. High temperature and humidity storage may reduce this period.

## Yield:

Approximately 10.5 m<sup>2</sup>/30 kg bag @ 2 mm thickness

## Cleaning:

Tools and containers may be cleaned using clean water when the adhesive is still fresh. The hardened adhesive can be removed from tools mechanically.

## Spacers:

Use TechnoFix® spacers or recommended by STIPL's Technical representative for uniform joint width.

## Limitation/Watch points:

- Do not use for continuously submerged conditions.
- Do not use for Greater than 12 mm thickness on horizontal surfaces and 6 mm on vertical surfaces.
- Do not use for Tile over tile applications.
- Do not use for Cases that require a rapid utilization for the surfaces.
- Do not use over metal, rubber, PVC or wood substrates
- Do not use over on painted surfaces unless modified with TechnoCrete® AcrylBond.
- Do not use at temperatures below +5°C and above 40°C.
- In hot weather conditions, pre-condition Tilefix Silver at 21°C for at least 24 hours and use chilled mixing water to extend open wet time.
- Substrate must achieve 2.4% moisture content for safe lying of tiles.
- Stiffened mortar must neither be diluted with water nor with fresh mortar.

## Health and Safety instructions:

As Tilefix Silver contains Portland cement and sand, Tilefix Silver may cause irritation to skin or eyes. In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advice if necessary. Protect your health while working with this material, always use safety goggles, gloves and safety clothing. When handling hazardous materials or pressurized materials, or during any application that may result in spills, splashes or airborne particles, a full face shield is strongly recommended.

Protect yourself and others on the jobsite. Consider property in proximity of the application area to prevent loss or damage. Protect your jobsite from unauthorized persons. Store all materials and equipment safely and out of reach of children and animals. Observe container labels, SDS, applicable laws and regulations and all instructions before using the product and equipment. In case one of the components comes in contact with the skin, wash thoroughly with soap and water. Provide adequate ventilation in volume and pattern in working area.

\*Further protection: emergency showers and eyewash stations. Get immediate medical attention as needed.

**DISCLAIMER:** The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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