

### Description :

**Stiles Fast Setting Porcelain Adhesive** is a grey quick-setting high-strength cement-based adhesive for fixing porcelain tiles. It can also be used to fix other types of tiles. The adhesive was designed for easy use, allowing a 4 hour pot life.

**Stiles Fast Setting Porcelain Adhesive** can be applied in bed thicknesses between 5 – 12mm, and up to 20mm in isolated areas only (*non-continuous, and not exceeding maximum 20% of the total area to be tiled*).

**NB: Stiles Fast Setting Porcelain Adhesive** should not be used with white or light-coloured porous natural stone tiles, where a grey adhesive may show through the tile in the form of “staining”. (A suitable light-coloured rapid-setting adhesive should be used in this instance.)

**Note : This product is designed for the above-mentioned application only. We will not be liable for misuse or adulteration of the product.**

### Technical Data :

Type	Cement-based tile adhesive	
Setting Type	Quick setting	
Colour	Grey	
Packaging	20kg	
Application Temp Range (Ambient)	10°C - 30°C	
Pot Life* (Working time after mixing)	Min 4 hours (3½ Hours when mixed with a latex additive)	
Open Time*	10 - 15 minutes	
Correction Time*	20 minutes	
Initial Set*	6-8 hours	
Final Set*	12 hours	
Mix Ratio :	Water - 5ℓ Latex Liquid Additive - 5ℓ Latex Powder Additive - 1kg	
<b>When Mixed with :</b>	<b>Water</b>	<b>Latex Liquid/Powder Additive</b>
Flexibility	Poor	Good
Temp Resistance	0°C - 30°C	0°C - 80°C
Resistance to Damp	Poor	Good

\*At 23°C and 50% relative humidity.

The above data was obtained under laboratory conditions using freshly manufactured material. Actual results in the field will vary as a result of factors such as Ambient Temperatures, Site Conditions, etc.

### Surface Preparation :

New floor and wall surfaces must be allowed to cure for the minimum periods detailed below to ensure that the tile installation is not compromised by drying shrinkage movement in the substrate:

- New concrete – 6 weeks
- New screed – 4 weeks
- New brickwork – 4 weeks
- New render – 2 weeks

All substrates should attain a moisture content of 5% (75% RH) or less before tiling is commenced. Should there be no damp-proof membrane below a surface bed or if prevailing moisture levels do not attain 5% or less, it is recommended that a good quality vapour barrier, which is compatible with cementitious tile adhesives, be applied prior to tiling to eliminate potential problems associated with excessive moisture in the substrate (such as slow- or non-curing of the adhesive, efflorescence on grout and porous tiles, etc).

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Any screeding or rendering must be firmly bonded to the underlying concrete or brickwork, and the substrate must be structurally sound (no crumbling, cracking, etc) and of a quality and consistency suitable for tiling. All damaged, defective, deteriorated or hollow sounding areas must be removed and made good before proceeding.

The substrate must be clean and free from all traces of surface laitance and contamination such as dust, dirt, waxes, oils, bitumen, old adhesives, paint, grease, weak cement screeds and renders, shutter release and curing agents, sealing compounds, etc. Organic or fungal growth must be removed and the spores killed using an effective fungicide.

Off-shutter Concrete, Smooth & Dense or Powerfloated & Steelfloated Surfaces	Clean thoroughly or mechanically abrade to remove shutter release and curing agents, laitance, polishes, etc. *Prime as directed.
Existing Ceramic or Porcelain Tiles <b>(NB: We do not advocate tiling over existing natural stone tiles, such as Slate or Sandstone)</b>	Must be in good condition and firmly bonded to the subsurface, ie not cracked, loose or hollow sounding. Acid wash and neutralize to remove dirt, grease, grime, sealants, polish, etc. *Prime as directed.
Existing Vinyl Flooring Existing Carpets	Floor coverings must be lifted, and the floor mechanically abraded (chipping, grinding, scabbling, etc) to remove existing fixative. *Prime as directed.
Bitumen Fixative Residues (after removal of Vinyl Tiles)	Remove floor covering residues, loose particles, etc. Substrate must be firm and sound. Prime with a good quality Bitumen Primer.
Existing Paint Existing Gypsum Skimcoats	The paint / gypsum skimcoat must be in good condition and firmly bonded to the substrate, ie not loose, flaking or peeling, and all traces of grease, grime, soap residues and other contaminants must be removed. <b>Domestic / Interior:</b> Mechanically abrade (chipping, grinding, scabbling, etc) to remove at least 80% of the paint/gypsum skimcoat. *Prime as directed. <b>Commercial / Exterior:</b> Mechanically abrade to remove all traces of paint/gypsum skimcoat.
Bitumen Waterproofing Compounds	Mechanically abrade (chipping, grinding, scabbling, etc) to remove <b>completely</b> . *Prime as directed.

**The surface must be clean and dry and free of all traces of dust, debris, loose particles and surface contaminants which could impair adhesion.**

### \* Priming Surfaces

Prime the surface with a slurry consisting of 1 part of a good quality latex-based liquid primer to 2 parts of a good quality cement-based powder primer **or** 2 parts of **Stiles Fast Setting Porcelain Adhesive** powder (by volume), which is applied using a builder's block brush, and ensuring completely coverage of the substrate. Allow this slurry coat to dry for 4 – 6 hours before applying **Stiles Fast Setting Porcelain Adhesive**.

### Mixing:

Using a mechanical mixer (eg 1.4kW drill with paddle mixer), add 20kg of **Stiles Fast Setting Porcelain Adhesive** to 5 litres of clean, cool water whilst mixing and mix well to a creamy, lump-free consistency (for optimal performance water temperature should be between 20°C and 25°C).

Mix well to a creamy, lump-free consistency. Let the mix stand for 3 - 5 minutes before stirring again. Use within 4 hours (Pot Life).

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For best results use a full bag in one mix.

For all exterior/exposed and “wet” applications, high traffic areas, areas subjected to thermal stresses or temperature changes, or where some flexibility is required, replace the water in the mix with a good quality latex-based liquid additive, or add a good quality latex-based powder to the adhesive mixing water and mix well before adding **Stiles Fast Setting Porcelain Adhesive**.

**NB:**

- Never add more liquid to a mix which has been left standing for too long, as this will compromise the integrity of the adhesive.
- Warm weather conditions and/or substrate and water temperatures (generally, temperatures above 30°C) may shorten the working time of the mixture, and may even result in flash-setting of the adhesive.
- Low ambient temperatures and/or substrate and water temperatures (generally, temperatures below 15°C) will have detrimental effects on the curing and integrity of the adhesive, ie full cure may not be achieved.

**Application:**

Ensure that the tiles are dry and the backs are free of dust and contaminants.

Apply the mix to the surface using a notched Wall Trowel for lightweight wall tiles, or a notched Floor Trowel for floor tiles, heavy and/or large format wall tiles and exterior wall tiles where a solid bed of adhesive is essential. **Stiles Fast Setting Porcelain Adhesive** can be applied in bed thicknesses between 5 – 12mm, and up to 20mm in isolated areas only (*non-continuous, and not exceeding maximum 20% of the total area to be tiled*).

The adhesive bed thickness should not exceed 5mm when using soft-bodied lightweight glazed ceramic wall tiles.

Apply only as much adhesive as can be tiled in 10 – 15 minutes to prevent the adhesive from “skinning” before the tiles are applied. Should a thin skin form, the adhesive must be freshened up by respreading with the notched trowel. Do not wet the adhesive with water as the water will form an anti-adhesive film. Dry or hardened adhesive must be removed and discarded.

Bed tiles firmly using a Rubber Mallet. When tiling floors or exterior walls ensure that the tile is in full contact with the adhesive. Occasionally, lift a tile to ensure that there are no air pockets or voids. Never fix tiles using the ‘spot’ method.

**Note:** Back buttering with a thin coat of adhesive is also required when using large format tiles to ensure full contact and a solid bed of adhesive behind/beneath each tile.

Never butt joint tiles. Always leave grout joints between tiles; at least 3mm wide between porcelain tiles, marble and granite tiles, and minimum 5mm wide between ceramic floor tiles and natural stone tiles (slate, sandstone, etc).

Do not tile over structural, expansion or cold joints in the background. These joints must be extended through the various layers to the surface.

Ensure that the grout joints and tile panel movement joints and perimeter joints are raked out and all adhesive residues removed before the adhesive dries.

**NB:**

- Allow a minimum of 6-8 hours before light trafficking or grouting. Full service after 12 hours. Longer setting times will apply to installations using large format tiles, as well as installations subjected to loaded traffic.
- It is important that newly installed tiles are protected from traffic (other trades, etc.) while the adhesive sets. This is especially important in fast-track installations. Too early trafficking of newly installed tiles before the adhesive has set sufficiently may result in an impaired bond (hollow-sounding and/or loose tiles).

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- Exterior tiling applications must be protected from inclement weather and too-rapid drying during installation and curing. Installations must not be subjected to running water or rain for at least 12 hours and must be protected from frost and direct sunlight for at least 24 hours after installation.
- Ensure that large format wall tiles are well supported by means of a batten or some type of mechanical device for a minimum of 12 hours, until the adhesive has set sufficiently. Mechanical supports should be incorporated in elevated installations.

### **Grouting:**

Allow at least 6-8 hours after completing the tiling before trafficking or grouting, depending on atmospheric conditions. Use a good quality proprietary cementitious grout according to the instructions. **Do not grout with neat cement.**

### **Movement Joints:**

Tile panel Movement joints should be located in both directions at maximum 5 metre centres for interior surface bed and wall applications, and maximum 3 metre centres for suspended slab applications and exterior applications.

Movement joints should also be located around the perimeter of all floors, in all horizontal and vertical corners, against obstructions fixed to the structural background and over all discontinuities in building materials, e.g. at interfaces of concrete and brickwork. In addition, movement joints should be located around any fixtures protruding through the tiled surface such as columns or stairs.

The joints should be at least 5mm wide and extend through the adhesive and tile layers. All construction / cold joints and structural joints in the background must be extended through the adhesive and tile layers to the surface in the form of tile panel movement joints. With regards to structural joints, the full width of the structural joints must be respected and extended through the adhesive and tile layers to the surface.

Where practical, the bulk of the depth of the movement joint can be filled with an inexpensive, compressible material such as polyethylene foam strips.

Seal the joint using a good quality resilient joint sealant material in accordance with the manufacturer's instructions.

### **Coverage:**

Coverage is approximately 3kg/m<sup>2</sup> when applied using Notched Wall Trowel, and approximately 6kg/m<sup>2</sup> when applied using a Notched Floor Trowel

**(NB: Actual coverages will be determined by site conditions, substrate levels, workmanship, etc)**

### **Cleaning:**

**Dry powder spillages** – sweep off or vacuum powder spillages, ensuring reduced exposure to moisture which potentially activates **Stiles Fast Setting Porcelain Adhesive**.

**Mixed product** - wipe the area with a DAMP (**not wet**) sponge before the adhesive has dried.

Dry product should be removed using a suitable solvent.

Clean hand and tools with warm, soapy water before the product dries.

### **Packaging:**

Available in 20kg bags.

### **Storage & Shelf Life:**

When stored in original sealed packaging in dry internal conditions between 10°C and 30°C and out of direct sunlight the product has a shelf life of 12 months from date of manufacture. **NB: To protect from damp, never store directly on a concrete floor.**

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# TECHNICAL DATA SHEET

# STILES FAST SETTING PORCELAIN ADHESIVE

Issue Date  
DECEMBER 2022



## Warning:

**Do not ingest or inhale. Use only as directed. Keep out of reach of children. Wear protective gloves and goggles. Use a suitable dust mask when working with cementitious products. Work in a well-ventilated area. Dispose of this product in accordance with Local Regulations. Contact TAL for further Health & Safety information.**

## Product Performance Guarantee:

We guarantee that **Stiles Fast Setting Porcelain Adhesive**, which is manufactured by TAL (a division of Norcros SA (Pty) Ltd), has been manufactured and tested in accordance with TAL procedures, which are maintained in line with Quality Control System Standard ISO 9001:2015, OSHAS 45001:2018 and Environmental Management System ISO 14001:2018, meets the product specifications and will be free of manufacturing defects.

Any guarantee with regard to the performance of **Stiles Fast Setting Porcelain Adhesive** will be subject to the professional and practical application of this product in accordance with the instructions on this data sheet.

However, we have no influence over specific site conditions and therefore, if in doubt, the user must always carry out sufficient tests to satisfy himself/herself that the product is suitable for the intended purpose. In special cases, obtain professional advice.

Stiles shall not be liable for the standard of workmanship on site, or for any defects or damage due to external causes or factors beyond the control of Stiles including, without limitation, unsound structures or foundations, building movement (cracking, creep, deflection, vibration, etc), design defects, earth tremor or other seismic disturbances, land slip, fire, flood or other immersion, damage to the tile installation by following trades or abusive trafficking, or any products which have been adulterated, contaminated or misused in any way. Debonding due to cohesive failure within the substrate is not classified as product failure. The aforementioned list is not exhaustive.

**NOTE :** It is required that we be informed, **in writing**, within a reasonable time of a suspected defect and afforded the opportunity to investigate the problem in detail **prior** to any remedial work whatsoever being carried out.

## TAL Technical Advice Centre :

For a detailed Materials and Methods Specification contact the TAL Technical Advice Centre on 0860 000 TAL(825), or e-mail [taltech@tal.co.za](mailto:taltech@tal.co.za).

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