KERAQUICK S1

High-performance, quick-setting, deformable cementitious adhesive with no vertical slip for ceramic tiles and stone material stable in the presence of humidity (thickness of adhesive up to 10 mm). With very low emission of volatile organic compounds.

CO_2e FULLY OFFSET PRODUCTS

Residual Greenhouse Gas emissions measured throughout the life cycle of this product using Life Cycle Assessment (LCA) methodology, verified and certified with EPDs, have been offset for the year 2026 through the acquisition of carbon credits in support of forestry protection projects. For more details on emission calculations and offsetting projects, visit mapei.com.

CLASSIFICATION IN COMPLIANCE WITH EN 12004

Keraquick S1 is a Cementitious (C) Improved (2), Fast Setting (F) Reduced Slip (T) Deformable (S1) tile adhesive classified as C2FT S1.

Mixing **Latex Plus** with **Keraquick S1** improves its deformability and changes its classification to C2FT S2.

Conformity of **Keraquick S1** is declared in TT certificates no. 25070276/Gi (TUM) and no. 25080063/Gi (TUM) issued by the Technische Universität München laboratory (Germany).

WHERE TO USE

Bonding to cement-based and suitably prepared calcium sulphate based screeds, concrete, plywood overlaid floors, existing unglazed ceramic floor tiles, cement-based renders, gypsum plaster, plasterboard, tilebacker boards.

- For interior and exterior use.
- For the installation of ceramic and porcelain tiles and mosaics. For natural stone not sensitive to moisture.
- Suitable for the installation of glass tiles and mosaics. Mix with **Latex Plus** where the glass has a coating on the rear.
- For the installation of insulating materials such as expanded and extruded polystyrene panels, gypsum boards, glass and rockwool, Eraclit®, aerated concrete blocks, sound deadening panels.

Some application examples

- Renovation in heavily trafficked areas and where surfaces need to be quickly back in service, such as public buildings, motorway services, pedestrian walkways, supermarkets, showrooms, airports etc.

- Rapid installation or renovation in swimming pools, industrial plants (breweries, wine cellars, dairies etc.),refrigeration units.
- Rapid installation in bathrooms, showers, kitchens, conservatories and on balconies and terraces.
- The installation of tiled finishes to water fed underfloor and undertile heating systems.
- The installation of ceramic and porcelain tiles directly to electric cable undertile heating systems
- The installation of non-absorbent floor tiles over existing floors, where a standard setting adhesive would be too slow.
- The installation of natural stone materials including light coloured stone (use **Keraquick S1** in white for the latter).
- The installation of MAPEI **Mapetex** anti-fracture membrane(when fixed with **Keraquick S1** mixed with **Latex Plus**).
- The installation of tiles externally in autumn/winter where night time temperatures drop below +5°C.

See note below.

Note: When fixing tiles at lower temperatures the pot life and setting time may be extended beyond 2 hours. In autumn / winter temperatures only fix tiles when the substrate and ambient temperature is above +5°C. When fixing externally ensure that the adhesive is applied during the warmest part of the day and that it will have cured sufficiently before temperatures drop below +5°C. Protect exposed tiled areas from frost by covering with appropriate materials.

TECHNICAL CHARACTERISTICS

Keraquick S1 is a powder composed of a blend of special cements, selectively graded aggregates, synthetic resins and accelerators, which develop high bond strength 2-3 hours after mixing.

These properties allow floors and walls tiled using **Keraquick S1** to be grouted after only 2 hours. Floors can also be subjected to light foot traffic after 2 hours and full service conditions after 24 hours. Where floors are to be subjected to heavy duty use, such as cherry pickers, the floor tiling should have been allowed to cure for a minimum of 7 days.

RECOMMENDATIONS

Use **Keraquick S1** mixed with **Latex Plus** in the following cases:

- on plywood substrates fixed direct to joists (minimum 18 mm plywood);
- for bonding tiles to tongue and groove floorboards or minimum P5 grade chipboard;
- for bonding tiles to existing glazed / porcelain tiles;
- for bonding tiles to well-bonded existing vinyl floor tiles;
- for bonding directly over water fed piped underfloor/undertile heating elements clipped into carrier boards or channels routed into the substrate.

Do not use **Keraquick S1** in the following cases:

- on metals, rubber, cork, PVC sheet and linoleum;
- for bonding expanded polystyrene insulation panels with a protective film / vapour barrier.

APPLICATION PROCEDURE

Preparation of the substrate

Substrates must be dry, flat, mechanically strong, sound, free from loose areas, grease, oil, paint, wax, old flooring adhesive and bitumen residues and any other contamination(e.g. plaster droppings), which may affect the adhesion. Damp substrates may lengthen **Keraquick S1** setting time.

Cementitious substrates must be cured and any shrinkage process must be at an end before tiles are installed. Renders should be cured for at least 2 weeks, concrete at least 6 weeks old, cement based screeds for at least 3 weeks unless they have been produced using the special MAPEI binders **Mapecem** or **Topcem** or with a

preblended screed mix such as **Mapecem Pronto** or **Topcem Pronto**. The substrate surface should ideally be open textured. Power floated concrete should be mechanically abraded (scabbled or shot-blasted) to open up the surface and to remove any curing agents.

Heated screeds must be commissioned in accordance with recognised technical regulations and the guidelines given in BS 5385 parts 3, 4 and 5. The commissioning process must be carried out before the installation of tiles or stone finishes.

Gypsum plaster should be at least 4 weeks old and primed with **Primer G**. Note: over-trowelled plaster surfaces should be lightly abraded to provide a key before priming. Calcium sulphate screeds must be dry to a moisture content of 0.5% w/w when measured using the carbide method. All surface laitance must be removed by mechanical abrasion and all dust thoroughly removed by vacuum. Prime the surface with **Eco Prim T Plus** (diluted 1:2 with water) or alternatively **Primer G**.

Plasterboard and tilebacker boards must be installed to provide a firm, stable substrate with no protruding fixings. Plywood must be a minimum of 15 mm thick and screw fixed at maximum 300 mm centres on floors. It should be of class 3 in accordance with EN 314 and EN 636. Steel substrates must be well braced to provide a deflection free support. Remove all rust, mould oil, grease and other contamination. Apply a skim / scratch coat of **Keraquick S1** mixed with **Latex Plus** and allow to set, then fix the tiles in a void free bed of the same product.

Mixing

A 20 kg bag of grey or white **Keraquick S1** should be mixed with approximately 4.8-5.2 litres of water or 6kg of **Latex Plus.** A 10kg bag should be mixed with approximately 2.4-2.6 litres of water or 3kg of **Latex Plus.** Pour clean water (or latex plus) into a clean mixing bucket. Add **Keraquick S1** powder and mechanically stir until a homogenous, lump-free paste is achieved. Allow the mix to stand for 2 minutes then briefly stir again. Use the mix within 30 minutes of preparation.

Applying the product

Apply the prepared **Keraquick S1** to the substrate with a notched trowel to a maximum of 10 mm thick. To achieve good adhesion to the substrate, first apply a skim coat of adhesive over the substrate using the flat edge of the trowel followed by combing through with the notched edge of the trowel to the required thickness. Ensure that a minimum coverage of 65-70% to the back of the tile is achieved in dry wall areas with 100%, as far as possible, in wet walls areas, on floors and in exteriors (walls and floors). Ensure that a trowel with a notch size and profile appropriate to the size of tile is used. For demanding applications such as exterior tiling subject to freezing, swimming pools or water feature installations, heavy duty areas, floor tiling to be ground in situ, when installing tiles with deep recesses or lugs on the rear and for fixing large format tiles (> 300 x 300 mm), the adhesive should also be applied to the rear of the tile (back buttering).

For the installation of tiles greater than 1200 x 1200 mm we recommend the addition of **Latex Plus** to **Keraquick S1**. On highly absorbent substrates it is recommended to prime with e.g. **Primer G** and **Eco Prim T Plus** before commencing tiling.

Installing the tiles

Do not wet the tiles before installation; if, however, the backs are very dusty, they should be dipped in clean water. Allow to dry before fixing. **Keraquick S1** open time in normal temperature and humidity is about 15-20 minutes; unfavourable weather conditions (strong sun, drying wind, high temperature), or a highly absorbent substrate may shorten this open time, sometimes quite drastically, to just a few minutes.

Constantly check to see whether the adhesive has formed a surface skin.

Should a surface skin have formed, the adhesive should be removed and fresh material applied. It is not recommended to wet the adhesive when it has formed a skin because a non-adhesive film will be formed. Tiling installed with **Keraquick S1** must not be subjected to washout or rain for at least 3 hours and must be protected from frost and strong sun for at least 24 hours after installation.

Spot bonding of insulating materials

Spot bonding to sound-deadening or insulating panels should be applied using a float or trowel, the trowel type and size will be determined by the flatness of the surface and the weight of the panels.

In these cases, check the open time and bear in mind that a few spots of adhesive on heavy panels may require temporary shoring which should only be removed once the **Keraquick S1** has begun to set.

GROUTING AND MOVEMENT JOINTS

Joints between the tiles can be grouted after a minimum of 2 hours with a suitable MAPEI cementitious or epoxy resin grout, available in a wide range of colours.

Movement joints must be sealed with an appropriate elastic sealant such as **Mapesil AC** or **Mapesil LM**.

SET TO LIGHT FOOT TRAFFIC

Floors are able to take light foot traffic after 2-3 hours. Lower temperatures may extend the setting time.

READY FOR USE

Tiled finishes are ready for use after a minimum of 24 hours. Where floors are to be subjected to heavy loads such as cherry pickers, then the adhesive should be allowed to cure for a minimum of 7 days.

Swimming pools, basins and water features can be filled after a minimum of 3 days.

CLEANING

Tools should be cleaned with water before the adhesive sets. Floors and walls can be cleaned with a damp cloth. Water should be used only in moderate quantities and after a few hours.

CONSUMPTION

Mosaics: ca. 2 kg/m^2

Standard size tiles: ca. 3-4 kg/m^2

Large tiles, floors, exteriors: ca. 4-6 kg/m^2

Notes: The above consumption figures represent average values and may vary dependent on the flatness of the substrate and the size of the notched trowel used.

PACKAGING

Keraquick S1 grey and white is available in 20 kg and 10 kg paper bags.

STORAGE

12 months when stored off the ground in the original unopened packaging protected from high humidity. Prolonged storage at extremes of temperature (low or high) and exposure to damp or humid conditions may extend the setting time of **Keraquick S1**.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website **www.mapei.co.uk.**

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA

TECHNICAL DATA	
In compliance with:	– European EN 12004 as C2FT S1
	– ISO 13007 as C2FT S1
PRODUCT IDENTITY	
Type:	powder
Colour:	Grey and White
Bulk density (kg/m^3):	1400 (Grey) : 1200 (White)
Dry solids content (%):	100
EMICODE:	EC1 Plus - very low emission
APPLICATION DATA (at +23°C - 50% R.H.)	

	Keraquick S1
Mixing ratio:	100 parts of powder with 24-26 parts by weight of water
Consistency of mix:	creamy paste
Density of mix (kg/m³):	1500
pH of mix:	approx. 11
Pot life:	30 minutes
Application temperature range:	from +5°C to +30°C
Open time (according to EN 1346):	15-20 minutes
Grouting joints:	2-3 hours
Set to light foot traffic:	2-3 hours
Ready for use:	24 hours (3 days for water features and swimming pools)
FINAL PERFORMANCES	
Tensile adhesion strength according to EN 1348 (N/mm.):	
– initial (after 28 days):	2.0
– after heat ageing:	1.8
– after water immersion:	1.0
– after freeze-thaw cycles:	1.0
Resistance to acids:	fair
Resistance to alkali:	excellent
Resistance to oils:	excellent
Resistance to solvents:	excellent
Temperature when in use:	from –30°C to +90°C
Deformability according to EN 12004:	S1 - deformable

N.B.

Whilst we try to ensure that any advice, recommendations or information given in our literature is accurate and correct, we have no control over the circumstances in which our product is used. It is therefore important that the end users satisfy themselves that the product and conditions are suitable for the envisaged application. No warranty can be given or responsibility accepted other than, that the product supplied by us will meet our written specification. End users should ensure that our latest product data and safety information sheets have been consulted prior to use.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.co.uk

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation. The most up-to-date TDS can be downloaded from our website www.mapei.co.uk.

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

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