

# Outline Specification

**Mapei Keraquick S1 Zero is a high-performance, quick-setting, deformable cementitious adhesive with no vertical slip, with very low emission of volatile organic compounds.**

<b>Introduction</b>	This specification is for the application of Mapei Keraquick S1 Zero to bond ceramic, porcelain, and moisture stable natural stone tiles and mosaics, to suitable substrates.	
<b>Surface Preparation</b>	Substrate must be sound, stable, and suitably cured with no contamination likely to affect the bond of the subsequent adhesive bed. Gypsum substrates must be primed using a suitable primer such as Mapei Primer G or Mapei Eco Prim T Plus. Prime non-porous substrates using Mapei Eco Prim Grip Plus. Wet areas such as wetrooms and bathrooms to be further protected by a waterproofing membrane such as Mapei Mapegum WPS. Mapei Mapelastic AquaDefense or products from the Mapei Mapeguard range.	
<b>Application of product to surfaces</b>	Apply the prepared product to the substrate before combing through using a suitable notched tiling trowel to the desired castellated bed thickness.	
<b>Application of tiles to applied adhesive bed</b>	For all floor applications, wall application where the tiles are larger than 300 x 300mm or where the tiles are to be installed in wet areas, apply a layer of the adhesive to the backs of the tiles filling all depressions and lugs. Apply the tiles to the adhesive bed using a twisting/sliding action, to ensure full contact is made. When installing tiles larger than 600 x 600mm or moisture sensitive natural stone Mapei Keraquick S1 Zero is to be mixed with Mapei Latex Plus additive.	
<b>Packaging</b>	20kg paper sack	
<b>Shelf life</b>	12 months when stored off the ground in the original unopened packaging protected from high humidity. Prolonged storage at extreme temperatures (low or high) and exposure to damp or humid conditions may influence the setting time of Keraquick S1 Zero.	
<b>Application temperature range</b>	+5°C to +30°C.	
<b>Additional system components</b>	Primer G Eco Prim Grip Mapelastic AquaDefense Mapeguard UM 35	Eco Prim T Plus Mapegum WPS Mapeguard WP200 Latex Plus

### Additional information

Keraquick S1 Zero is part of the CO<sub>2</sub> Fully Offset in the Entire Life Cycle line of products. CO<sub>2</sub> emissions measured throughout the life cycle of products from the Zero line in 2024 using Life Cycle Assessment (LCA) methodology, verified and certified with EPDs, have been offset through the acquisition of certified carbon credits in support of forestry protection projects. A commitment to the planet, to people and to biodiversity. For more details on how emissions are calculated and on climate mitigation projects financed through certified carbon credits, visit the webpage [zero.mapei.com](https://zero.mapei.com)

Please consult Health & Safety, system, product and application data or contact our Technical Services Department on 0121 5086970 or email [technical@mapei.co.uk](mailto:technical@mapei.co.uk).

If you require a full NBS, letter recommendation, further specification information or standard details, please email [specifications@mapei.co.uk](mailto:specifications@mapei.co.uk)

### Technical Information:

#### PRODUCT IDENTITY

<b>Type:</b>	Powder
<b>Colour:</b>	Grey and White
<b>Nominal applied thickness:</b>	3 – 10mm
<b>Bulk density (kg/m<sup>3</sup>):</b>	1400 (Grey) : 1200 (White)
<b>Dry solids content (%)</b>	100
<b>EMICODE:</b>	EC1 Plus - very low emission

## TECHNICAL PERFORMANCE

***Keraquick S1 Zero tile adhesive is compliant with EN 12004 & ISO 13007 as C2FT S1***

### APPLICATION DATA (at +23 C - 50% R.H.)

Mixing ratio:

Keraquick S1 Zero 100 parts of powder with 24-26 parts by weight of water

Consistency of mix:

Creamy paste

Density of mix (kg/m<sup>3</sup>):

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

## TECHNICAL PERFORMANCE

### TECHNICAL DATA FOR Keraquick S1 Zero + LATEX PLUS In compliance with: – European EN 12004 as C2FT S2 – DIN 18156 - Part 2

#### APPLICATION DATA (at +23 C - 50% R.H.)

Mixing ratio:	6 kg Latex Plus for each 20 kg Keraquick S1 Zero
Consistency of mix:	Creamy paste
Density of mix (kg/m <sup>3</sup> ):	1550
pH of mix:	Approx. 11
Pot life:	30 minutes
Application temperature range:	From +5°C to +30°C
Open time (according to EN 1346):	10-15 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):	2.5
– after heat ageing:	2.8
– after water immersion:	1.3
– after freeze-thaw cycles:	1.3
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:	S2 – Highly deformable

#### NOTICE

The information contained herein and any other advice, are given in good faith based on Mapei's current knowledge and experience, and are adequate when the products are properly stored, handled and applied under normal conditions, in accordance with Mapei's recommendations. The information only applies to the applications and products expressly referred to herein and are based on laboratory tests which do not replace practical tests and may not fully reflect actual performance on site where application and service conditions will be different. In case of changes in the parameters of the application, such as differences in substrates, temperature and ambient moisture, etc., or in case of different service conditions, consult your local Mapei Technical Assistance prior to using the products. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The specialist contractor is responsible for strictly following the application recommendations contained in the available documentation. Users must always refer to the most recent local Technical Data Sheet for the product concerned which can be obtained from the web-site or local Mapei representative.