# MEGAFIX MAXI S1

**High performance, deformable, cementitious, grey or white adhesive, with extended open time, no vertical slip, for ceramic tiles and natural stone, with Low Dust technology, very low emission of volatile organic compounds and with fully offset residual Greenhouse Gas emissions. Particularly suitable for installing large-format porcelain tiles**




## BENEFITS AND FEATURES

- Extended opening hours
- High performance
- Deformable
- Suitable for bonding large format tiles and natural stone
- Highly thixotropic
- Less dust emitted during mixing
- Very low VOC emissions
- Residual Greenhouse Gas emissions fully offset

## CLASSIFICATION ACCORDING TO EN 12004

**Megafix Maxi S1** is a C2TES1 class cementitious (C), improved (2), non-slip (T), extended open time (E) deformable (S1) grey or white adhesive.

## $CO_2e$ 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.

## WHERE TO USE

- Indoor and outdoor bonding, up to 15 mm thick, on ceramic tile floors of all types and sizes (single- and double-fired tiles, porcelain tiles, clinker, terracotta, etc.) on uneven substrates and plaster, without having to level the floor beforehand.
- Indoor and outdoor bonding of natural stone (provided they can withstand moisture).
- Ideal for bonding tiles and natural stone in swimming pools.

## Some application examples

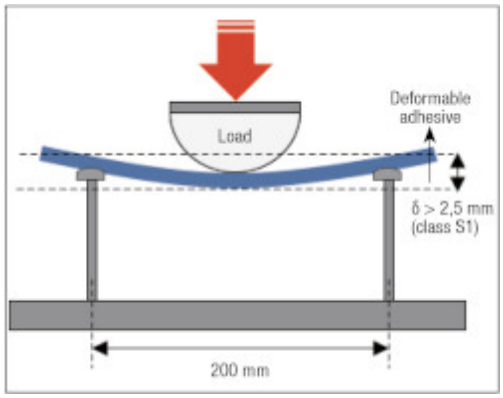
- Bonding of ceramic tiles (double-fired, single-fired, porcelain tiles, clinker, etc.) and natural stone (provided they can withstand moisture) to common substrates, such as:
  - Cement-based screeds and anhydrite screeds (after application of **Primer G** or **Eco Prim T Plus**).
  - Screening with underfloor heating.
- Cement-based plaster or lime and cement-based mortar;
- Gypsum boards if they are well attached.
- Ceramic and natural stone tiles on existing floors (ceramic, marble, etc.).
- Installation of floors exposed to heavy traffic.
- Installation of floor and wall tiles on substrates waterproofed with **Mapelastic** or wet room membranes such as **Mapeguard WP 2K Membrane**, **Mapeguard WP 90/140/200** or **Mapegum WPS**.
- Interior and exterior bonding of tiles (porcelain tiles, clinker, single-fired, terracotta) with a rough or uneven surface.
- Gluing on prefabricated walls after they have been sanded.
- For laying tiles and natural stone in swimming pools.

# TECHNICAL CHARACTERISTICS

**Megafix Maxi S1** is a grey or white powder composed of cement and fine-grained sand. It contains a large amount of synthetic resins and special additives based on a prescription developed in MAPEI's research laboratories. The environmental impact throughout the life cycle of **Megafix Maxi S1** has been assessed through the Life Cycle Assessment (LCA) method and reported in the EPD n° NEPD-9074-9074-1 for the grey version and n° NEPD-18026-18026-1 for the white one (Environmental Product Declaration) in accordance with the ISO 14025 standard, certified and published by the International EPD system.
**Megafix Maxi S1** is a product with very low Volatile Organic Compounds (VOCs), which provides safety and security for the user and end user, the product is certified with EC1 Plus by the German GEV Institute. The innovative **Low Dust** technology that characterises this adhesive greatly reduces the amount of dust emitted during mixing of the product, making the workspace more comfortable and healthy for floor layers.

A tile adhesive with the following properties is obtained when **Megafix Maxi S1** is mixed with water:

- Low viscosity and therefore easy to process.
- Highly thixotropic: **Megafix Maxi S1** can be applied to a vertical surface without any slippage, and not even heavy and large tiles slip. Tiles can be installed from top to bottom without using spacers.
- Good ability to absorb deformations in the substrate and tiles.
- Good ability to absorb movement between the substrate and the tiles, > 2.5 mm deformable according to the test method in EN 12004.




- Perfect attachment to all materials normally used in buildings.
- Hardens, even when very thickly applied, without significant shrinkage and without reduced thickness, until it reaches a significant strength.
- Specially extended open time and adjustment time, simplifying assembly.

## RECOMMENDATIONS

Do not use **Megafix Maxi S1** in the following cases:

- On wood and wood compositions (only together with **Mapeguard UM 35** - for more information, see instructions manual for **Mapeguard UM 35**).
- On metal, rubber, PVC and linoleum surfaces.
- With marble and natural stone slabs prone to efflorescence or discoloration.
- With natural stone slabs or slabs of artificial stone materials (terrazzo) exposed to movement due to moisture.
- On unhardened concrete that has been factory cast or subjected to heavy movement.
- When surfaces need to be ready for traffic in a short time.

Do not add water to the mixture after the adhesive has started the curing process.

## APPLICATION PROCEDURE

### Preparation of the substrate

All substrates to which **Megafix Maxi S1** is applied must be hardened, mechanically resistant, solid, clean, free from cracks, loose materials, oil, grease, wax and dust, and sufficiently dry. Cement-based substrates should not be subject to shrinkage after installation of ceramic tiles, therefore they must cure for at least one week for every cm of thickness and cement-based screeds must have a total curing time of at least 28 days, if not made with special binders for MAPEI screeds, such as **Mapecem Pronto** or **Topcem Pronto**.

Moisten with water to cool surfaces that have been heated by exposure to sunlight. Gypsum substrates and anhydrite screeds must be completely dry, sufficiently hard and dust-free. It is absolutely essential that they are sanded, then treated with **Primer G** or **Eco Prim T Plus**.

### Preparation of the mix

Mix **Megafix Maxi S1** with clean water until you get a smooth, lump-free paste. Let it rest for about 5 minutes and stir again. Use approx. 5.8 - 6.2 liters of water per each 20 kg bag, grey product and approx. 5.4 - 5.8 liters of water per each 20 kg bag, white product. Mixed in this way, **Megafix Maxi S1** has a pot life of 8 hours.

### Application of the mix

**Megafix Maxi S1** is applied to the substrate using a notched trowel. Choose a notched trowel that allows proper coverage of the back of the tiles to be installed.
If the substrate is highly absorbent and has a high temperature as a result of the sun, it is recommended to pre-wet the substrate so that it cools down. This may give **Megafix Maxi S1** a somewhat longer open time.
To achieve good adhesion, first spread a thin layer of **Megafix Maxi S1** on the substrate using the straight edge of the trowel. Immediately afterwards, apply the desired thickness of **Megafix Maxi S1** using a suitable notched trowel, depending on the type and size of the tiles.
For outdoor ceramic tile floors and walls, surfaces larger than 900 $cm^2$, floors that need to be polished during installation or that are exposed to heavy traffic, or for use in swimming pools and pools filled with water, spread the adhesive on the back of the tile (back smear) to ensure 100 % coverage.

### Bonding tiles

It is not necessary to moisten the tiles before installation. Only if the backing is very dusty is it recommended to dip the tiles in clean water. Tiles should be installed with a firm pressure to ensure good coverage of the adhesive. Under normal temperature and humidity conditions, the open time of **Megafix Maxi S1** is at least 30 minutes. Unfavorable weather conditions (strong sun, drying wind, high temperatures, etc.) or a highly absorbent substrate can reduce open time, even to just a few minutes. Thorough checks must be carried out to ensure that the adhesive does not shine on the surface of the distributed adhesive, which must be fresh. If not, refresh the adhesive by redistributing it with a notched trowel. It is not recommended to add water to the adhesive after the film has formed, because the water will form a non-adhesive film instead of dissolving the film. If necessary, the tiles should be adjusted within 45 minutes of installation. Tiles installed with **Megafix Maxi S1** must not be washed or exposed to rain for at least 24 hours, and must be protected from frost and strong sun for at least 5 - 7 days.

While laying tiles, it is recommended to use levelling systems of **MapeLevel** line to maintain the correct size of grouts and reduce height unevenness between tiles.

## GROUTING AND SEALING

On wall joints, application can take place after 4 - 8 hours and on floor joints, application can take place after 24 hours with a suitable MAPEI cement-based or epoxy-based sealant, available in different colors.
Expansion joints must be sealed with a separate MAPEI sealant.
If necessary, clean/maintain or protect the surfaces with products from the **UltraCare** series.

## SET TO LIGHT FOOT TRAFFIC

Floors are ready for light foot traffic after approximately 24 hours.

## READY TO USE

Surfaces are ready for use after approximately 14 days. Swimming pools can be filled with water 21 days after using **Megafix Maxi S1**.

## CLEANING

Tools and containers should be cleaned with plenty of water while **Megafix Maxi S1** is still fresh. Surfaces should be cleaned with a damp cloth before the adhesive hardens.

## CONSUMPTION

- 1.2 kg/m² per mm thickness.

## PACKAGING

**Megafix Maxi S1** is available in 20 kg paper bags.

## STORAGE

**Megafix Maxi S1** may be stored for 12 months in its original packaging in a dry place.

## SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION

Instructions for the safe use of our products can be found on the latest version of the SDS available from our website www.mapei.no

PRODUCT FOR PROFESSIONAL USE.

# TECHNICAL DATA (typical values)

**Complies with: – Euronorm EN 12004 (C2TES1) – ISO 13007-1 (C2TES1)**

| PRODUCT IDENTITY | |
|---|---|
| **Consistency:** | powder |
| **Colour:** | grey and white |
| **Density:** | 1400 kg/m³ |
| **Dry solids content:** | 100 % |
| **EMICODE:** | EC1 Plus - very low emission |

| APPLICATION DATA (at +23°C and 50% R.H.) | |
|---|---|
| **Mixing ratio:** | 100 parts **Megafix Maxi S1** grey with 29 - 31 parts in weight of water.<br>100 parts **Megafix Maxi S1** white with 27 - 29 parts in weight of water. |
| **Consistency of mix:** | paste |
| **Density of mix:** | 1550 kg/m³ |
| **pH of mix:** | more than 12 |
| **Pot life of mix:** | over 8 hours |
| **Application temperature range:** | +5°C to +35°C |
| **Open time (according to EN 1346):** | > 30 minutes |
| **Adjustment time:** | approx. 45 minutes |
| **Grouting joints in wall tiles:** | after 4 - 8 hours |
| **Grouting joints in floor tiles:** | after 24 hours |
| **Set to foot traffic:** | after 24 hours |
| **Ready for service:** | after 14 days |

| FINAL PERFORMANCE | |
|---|---|
| **Adhesion in accordance with EN 1348:**<br>**– initial adhesion (after 28 days):**<br>**– adhesion after application of heat source:**<br>**– adhesion after immersion in water:**<br>**– adhesion after freeze-thaw cycles:** | <br>2.6 N/mm²<br>2.5 N/mm²<br>1.1 N/mm²<br>1.3 N/mm² |
| **Resistance to alkalis:** | excellent |
| **Resistance to oils:** | excellent (poor to vegetable oils) |
| **Resistance to solvents:** | excellent |
| **In-service temperature range:** | -30°C to +90°C |
| **Deformability according to EN 12004:** | S1 - deformable (> 2.5 mm, < 5 mm) |

## WARNING

*Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above - information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application: for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application: in every case, the user alone is fully responsible for any consequences deriving from the use of the product.*

**Please refer to the current version of the technical data sheet, available from our web site www.mapei.no**

## 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 effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at www.mapei.no***

**ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.**

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**12908-10-2026-gbxno**

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