



Kerastile

G1

**Cement based adhesive
for ceramic tiles
(thickness of adhesive
up to 10 mm)**

CLASSIFICATION IN COMPLIANCE WITH EN 12004

Kerastile G1 is a normal (1) cementitious adhesive (C) with extended open time (E) of class C1E.

Conformity of **Kerastile G1** is declared in **ITT** certificate **No. 25100242/AG (TUM)** issued by the Technische Universität München (Germany).

WHERE TO USE

Interior and exterior bonding of ceramic tiles and mosaics, single-fired and double-fired tiles for floors, walls and ceilings

Some application examples

Bonding of ceramic mosaics, absorbent single-fired or double-fired ceramic tiles on:

- traditional renders or cement mortar;
- ordinary or floating reinforced, cementitious screeds that they are sufficiently cured and dry.

TECHNICAL CHARACTERISTICS

Kerastile G1 is a white powder composed of cement, sand of selected granulometry, synthetic resins and special admixtures, according to a formula developed in the MAPEI Research and Development Laboratories.

Kerastile G1, mixed with water, becomes an easily workable mortar that can be applied even vertically without slumping and without letting the tiles slip.

Kerastile G1 hardens without appreciable shrinkage attaining a good resistance, adhering

perfectly to all materials normally used in the building construction.

RECOMMENDATIONS

Do not use **Kerastile G1**:

- on wood and wooden mixtures;
- on gypsum board or light weight concrete walls;
- on metal, rubber, PVC or linoleum surfaces;
- for the installation of glass mosaics;
- for large size tiles;
- on pre-cast concrete or concrete subjected to strong movements;
- on heated or existed floors;
- in cases where the surface needs to be set to light traffic quickly.

APPLICATION PROCEDURE

Preparing the substrate

The substrates must be cured, sufficiently dry, flat, mechanically strong, free of loose particles, grease, oils, paints, wax, etc.

Cementitious substrates must not be subjected to shrinkage after the installation of ceramic tiles. In mild weather, renders must cure for at least 1 week per cm of thickness and cementitious screeds must cure for at least 28 days, unless special MAPEI binders for screeds are used, such as **Mapecem**, **Mapecem Pronto**, **Topcem** or **Topcem Pronto**.

Dampen surfaces to cool down, if they have been heated by exposure to direct sunlight.

Gypsum substrates and anhydrite screeds must be perfectly dry, sufficiently hardened and free from dust

and, in this case, it is absolutely essential the treatment with **Primer G** or **Mapeprim SP** in areas subjected to high humidity **Primer S** must be used.

Preparing the mix

Mix **Kerastile G1** with clean water until a smooth, lump-free paste is obtained. Leave the mix to rest for approximately some minutes and re-stir. The paste is then ready for use.

Use 28-30 parts of water for every 100 parts (by weight) of **Kerastile G1**, which is equal to 7-7.5 liters of water for every 25 kg bag of **Kerastile G1** and equal to 5.6-6 liters of water for every 20 kg bag of **Kerastile G1**. Mixing in this way, **Kerastile G1** has a pot life of approximately 4 hours.

Applying the mix

Kerastile G1 is applied on the substrate using a notched trowel. Choose a trowel that will cover with adhesive the 65-70% of the back of the tiles for interior walls and light traffic floors. For heavy traffic floors and for external application the coverage must be 100%.

To obtain good adhesion to the substrate the following system is recommended: apply first a thin layer of **Kerastile G1** on the substrate using the straight edge of the trowel and immediately afterwards apply the desired thickness of **Kerastile G1** using a suitable notched trowel.

In particular:

- for mosaics up to 6x6 cm the use of MAPEI No. 4 square toothed trowel is recommended (consumption 3 kg/m²);
- for normal ceramic coverings the use of MAPEI No. 5 notched trowel is recommended (consumption 4 kg/m²);
- for substrates that have an irregular surface or tiles with rough back, the use of MAPEI No. 6 notched trowel is recommended (consumption 5 kg/m²);
- in the case of external ceramic floor and wall tiles subjected to frost or in difficult applications, **Kerastile G1** must also be applied on the back of the tiles (back-buttering method).

Installing the tiles

It is not necessary to wet the tiles before installing them. Only in the case of very dusty backs is recommended to dip the tiles in clean water. Tiles should be installed with a firm pressure to ensure good contact with the adhesive.

In normal temperature and humidity conditions, the open time of **Kerastile G1** is approximately 30 minutes. Under unfavorable weather conditions (strong sun, drying wind, high temperatures, etc. or very absorbent substrates) the open time can be reduced even to just a few minutes.

Therefore, it is necessary to carry out careful checks in order to ensure that a skin is

not formed on the surface of the spread adhesive, which should remain fresh. Where there is a formation of superficial skin, the adhesive must be re-applied with the notched trowel. It is not recommended to wet the adhesive with water once a skin has formed because, instead of dissolving the skin, the water will form an anti-adhesive film. The "adjustability" of the tiles must be carried out within 45 minutes after installation. Tiles installed with **Kerastile G1** 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 after installation.

GROUTING AND SEALING

Wall joints can be grouted after 4-6 hours and floor joints can be grouted after 24 hours with the relevant MAPEI cementitious or epoxy grouts, available in different colours. Expansion joints must be sealed with the specific MAPEI sealants.

SET TO LIGHT FOOT TRAFFIC

Floors are set to light foot traffic after approximately 24 hours.

READY FOR USE

Surfaces are ready for use after approximately 14 days.

Cleaning

Tools and containers must be cleaned with plenty of water and surfaces of tiles with a damp cloth. Water should be used in moderate quantities after a few hours.

CONSUMPTION

Bonding of ceramic tiles:

- small sized tiles in general (trowel n. 4): 3 kg/m²
- normal sized tiles (trowel n. 5): 4 kg/m²
- external floor and wall coverings (trowel n. 6): 5 kg/m²

PACKAGING

Kerastile G1 is available in 25 and 20 kg paper bags.

STORAGE

Kerastile G1 can be stored 12 months in a dry place in its original packaging. The product complies with the conditions Annex XVII to Regulation (EC) No 1907/2006 (REACH), item 47.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Kerastile G1 is irritant; contains cement that when in contact with sweat or other body fluids produces an irritant alkaline reaction and allergic reactions to those predisposed. Use protective gloves and goggles. It can cause eyes damages.

For further and complete information about a safety use of our product please refer to our latest version of the Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

In compliance with:

– European EN 12004 as C1E
– ISO 13007-1 as C1E

PRODUCT IDENTITY

Type:	powder
Colour:	white
Bulk density (kg/m ³):	1,300
Dry solids content (%):	100
EMICODE:	EC1 R - very low emission

APPLICATION DATA (at +23°C and 50% R.H.)

Mixing ratio:	100 parts Kerastile G1 with 28-30 parts water by weight
Consistency of mix:	pasty
Density of the mix (kg/m ³):	1,500
pH of mix:	over 12
Pot life:	over 4 hours
Application temperature:	from +5°C to +35°C
Open time (acc. EN 1346):	> 30 minutes
Adjustability time:	approx. 45 minutes
Wall grouting:	after 4-6 hours depending on absorbency
Floor grouting:	after 24 hours
Set to light foot traffic:	24 hours
Ready for use:	14 days

FINAL PERFORMANCE

Bonding strength in compliance with EN 1348 (N/mm²): – initial bonding after 28 days: – bonding after heating: – bonding after water immersion: – bonding after freeze/thaw cycles:	 > 1.3 > 0.8 > 1.0 > 1.0
Resistance to damp:	excellent
Resistance to ageing:	excellent
Resistance to solvents and oils:	excellent
Resistance to acids and alkalis:	poor
Temperature when on use:	from -30°C to +90°C

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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 website www.mapei.com



This symbol is used to identify Mapei products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gesellschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), an international organisation for controlling the level of emissions from products used for floors.



Our Commitment To The Environment
MAPEI products assist Project Designers and Contractors create innovative LEED (The Leadership in Energy and Environmental Design) certified projects, in compliance with the U.S. Green Building Council.

All relevant references for the product are available upon request and from www.mapei.com



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