

KERABOND T

Cementitious adhesive with no vertical slip for ceramic tiles



CLASSIFICATION IN COMPLIANCE WITH EN 12004 & MS ISO 13007

Kerabond T is a normal (I) slip-resistant (T) cementitious (C) adhesive of class C1T.

Conformity of Kerabond T is declared in ITT certificates n° 25050176-1/Gi (TUM) and n° 25080238/Gi (TUM) issued by the Technische Universität München laboratory (Germany) and in ITT certificates n° 1220.8/10/R03 NPU; 1220.10/10/R03 NPU and 1220.9/10/R03 NPU issued by the ITB Katowice Institute (Poland).

WHERE TO USE

- Indoor and outdoor fixing of ceramic tiles and mosaics of all types on floors, walls and ceilings.
- Spot bonding of insulating materials such as expanded polystyrene, expanded polyurethane, rock and glass wool, Heraclit® wood-cement and sound-deadening panels, etc.

Some application examples

- Paper-faced or mesh-backed mosaics and all types of ceramic tiles (quarry tiles, single fired and klinker tiles, etc.), on:
- conventional renders or cement mortar walls;
 - ordinary concrete slabs or reinforced floating slabs, provided they are sufficiently well aged and dry;
 - gypsum supports and anhydrite screeds as long as they are first treated with a primer.

TECHNICAL CHARACTERISTICS

Kerabond T is a grey or white powder composed of cement, fine-grade, synthetic resins and special admixtures formulated in the MAPEI Research and Development Laboratories. Mixed with water, Kerabond T becomes an easily trowellable mortar with good bonding strength, low slump and high grab so that it can be applied vertically without sagging, even holding heavy tiles. It is possible to install from the top towards the bottom without using spacer pegs. Kerabond T hardens without noticeable shrinkage to become extremely resistant, adhering perfectly to all the conventional materials used in construction.

N.B.: Mixing Kerabond T with Isolastic in place of water improves the characteristics to meet the requirements of class C2ES2 (highly deformable improved cementitious adhesive with extended open time) according to EN 12004 & MS ISO 13007.

RECOMMENDATIONS

Use Kerabond T mixed with Isolastic in the following cases:

- on foamed concrete walls;
- on pre-cast or cast-concrete structures;
- over underfloor heating installations;
- with large-size tiles;
- for the installation of glass mosaics;
- for the installation of stone materials as long as they are stable and moisture proof.

Do not use **Kerabond T** in the following cases:

- on wooden substrates;
- on gypsum board walls;
- on metal, rubber, PVC and linoleum surfaces;
- for laying tiles which require a layer of adhesive more than 5 mm thick;
- where the surface must be set to light foot traffic rapidly;
- for the installation of non-absorbent tiles (quarry tiles, single-fired tiles, klinker tiles, etc.) on other non-absorbent wall and floor substrates.

APPLICATION PROCEDURE

Preparing the substrate

The substrates must be cured, mechanically strong, free from loose particles, grease, oils, paint, wax and sufficiently dry. Cement substrates must not be subject to shrinkage after the installation of the tiles. During spring and summer, renders must be cured for at least one week for every centimetre of thickness and cement screeds must be cured for at least 28 days, unless they have been made with MAPEI special binders for screeds such as **Mapecem**, **Mapecem Pronto**, **Topcem** or with **Topcem Pronto**. Dampen with water to cool surfaces which have been heated by exposure to sunlight. Gypsum substrates and anhydrite screeds must be perfectly dry, sufficiently hard and free from dust. It is absolutely essential that the surface is abraded and then treated with **Primer G** or **Eco Prim T Plus**. Areas subject to high humidity should be primed with **Primer S**.

In general, refer to the relative MAPEI technical documentation regarding substrate preparation before repairing cracks in substrates, consolidating rapid-drying screeds and levelling off installation surfaces.

Preparing the mix

Kerabond T must be mixed with clean water to obtain an homogenous lump free paste; after 5-10 minutes resting, it must be re-mixed. The paste is then ready for use. The quantity of water to be used is 26-29 parts per 100 parts (by weight) of **Kerabond T** (equal to 6.75-7.25 litres of water for 25kg of **Kerabond T**). Always refer to the quantity of mixing water prescribed on the packaging. The mix, produced in this way, is workable for at least 8 hours.

Applying the mix

Kerabond T is applied with a notched trowel onto the substrate. Choose a trowel that will give a coverage to the back of the tiles of at least 65-70% for walls or for indoor light foot traffic. For heavy traffic, total immersion and for outdoor application, the coverage must be 100%.

To obtain good adhesion to the substrate the following system is recommended: first apply a thin coat of **Kerabond T** using the smooth side of the trowel and immediately after apply the desired thickness of **Kerabond T** using the toothed side of the trowel. In particular:

- for mosaics up to 5x5 cm, the MAPEI No. 4 square-notched trowel is recommended;
- for normal ceramic wall tiles, the MAPEI No. 5 V-notched trowel (consumption 2.5-3 kg/m²) is recommended;
- for floors, very irregular surfaces and tiles with high ribs or lugs, the MAPEI No. 6 V-notched trowel (consumption approx. 5 kg/m²) is recommended;
- in the case of outdoor ceramic floor and wall coverings subject to freezing, or in the case of other special uses such as swimming pools reservoirs, sizes larger than 9 cm², floors to be polished after installation or subject to heavy loads, **Kerabond T** should be applied evenly to the back of the tile (back-buttering).

Installing the tiles

- It is not necessary to wet the tiles before installation; if, however, the backs are very dusty, they should be wiped in clean water.
- Apply the tiles with a firm pressure to ensure good contact with the adhesive.
- **Kerabond T**'s open time in normal temperature and humidity is 20-30 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.
- There must be constant checks to see whether the adhesive has formed a surface skin or is still fresh to the touch. Should a surface skin have formed, the adhesive should be retrowelled. It is inadvisable to wet the adhesive when it has formed a skin because, instead of dissolving the skin, a non-adhesive film will be formed.
- Adjustment of the tiles, if necessary, should be carried out within 45 minutes following installation, after which time, adjustment will become problematic.
- Tiling installed with **Kerabond T** must not be subject to washout or rain for at least 24 hours and must be protected from freezing and direct sun for at least 5-7 days after application.

Spot bonding insulating materials

Spot bonding of sound-deadening or insulating panels should be applied using a float or trowel. The required number and thickness determined by the flatness of the surface and weight of the panels. In these cases too, the open time must be observed, bearing in mind that a few spots of adhesive on heavy panels may require temporary shoring which should then only be removed after the **Kerabond T** has begun to set.

GROUTING AND SEALING

Wall joints between ceramic tiles can be grouted after 4-8 hours and floor joints can be grouted after 24 hours with the specific 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.

TECHNICAL DATA (typical values)

In compliance with:

- European EN 12004 as C1T
- European EN 12004 as C2ES2 (if mixed with Isolastic)
- ISO 13007 as C1T
- ISO 13007 as C2ES2 (if mixed with Isolastic)

PRODUCT IDENTITY

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

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

Mixing ratio:	100 parts of Kerabond T grey with 26 – 29 parts of water 100 parts of Kerabond T white with 26 – 29 parts of water
Consistency of mix:	very pasty
Density of mix (kg/m ³):	1,450
pH of mix:	13
Pot life (hrs):	> 8
Application temperature:	from +5°C to +40°C
Open time (min.) (according to EN 1346):	> 20
Adjustability time (min.):	approx. 45
Wall grouting (hrs):	after 4 – 8
Floor grouting (hrs):	after 24
Set to light foot traffic (hrs):	24
Ready for use (days):	14

FINAL PERFORMANCES

Adhesion strength according to EN 1348 (N/mm ²):	
· initial adhesion strength (after 28 days):	1.4
· adhesion strength after heat:	0.8
· adhesion strength after water immersion:	0.9
· adhesion strength after freeze-thaw cycles:	1.2
Resistance to alkalis:	excellent
Resistance to oils:	excellent (poor to vegetable oils)
Resistance to solvents:	excellent
Temperature resistance after final cure:	from -30°C to +90°C

N.B.: The technical data of **Kerabond T** mixed with **Isolastic** are on the latter's technical data sheet.

READY FOR USE

Floors are ready for use after approx. 14 days.

Cleaning

Tools can be cleaned with plenty of water, while surfaces should be cleaned with a damp cloth; water should be used only in moderate quantities and after a few hours.

CONSUMPTION

Ceramic tiling

- Mosaics and small size tiles (trowel No. 4/5): 2-3 kg/m²
- Medium size tiles (trowel No. 5/6): 4-5 kg/m²
- Large sizes, floors, exteriors (trowel No. 6/10): > 6 kg/m² and over

Spot-bonding insulating materials

- Foam materials, etc.: approx. 0.5-0.8 kg/m²
- Gypsum wallboard, foamed concrete: approx. 1.5 kg/m²

PACKAGING

Kerabond T is supplied in white and grey in 25 kg paper bags

STORAGE

12 months when stored in a normal environment and original packaging.

SAFETY INSTRUCTION FOR PREPARATION AND INSTALLATION

Kerabond T contains cement that when in contact with sweat or other body fluids causes irritant alkaline reaction and allergic reactions to those predisposed. It can cause damage to eyes. During use, wear protective gloves and goggles and take the usual precautions for handling chemical products. In case of contact with eyes or skin wash immediately with plenty of water and seek medical attention. It is recommended to use protective gloves and goggles. For further and complete information about the safe use of our product please refer to the latest version of our Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

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

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