



Kerabond



Cementitious adhesive for ceramic tiles



CLASSIFICATION IN COMPLIANCE WITH EN 12004

Kerabond is a normal (1) cementitious (C) adhesive of class C1.

WHERE TO USE

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

Some application examples

Ceramic mosaics on paper or netting, of 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, on condition 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 is a grey or white powder composed of cement, fine-graded, synthetic resins and special additives according to a formula developed in the MAPEI research laboratories.

Mixed with water, **Kerabond** becomes an easily trowellable mortar with good bonding strength, low slump and high grab so that it can be applied vertically without sagging or letting even heavy tiles slip.

Kerabond hardens without noticeable shrinkage to become extremely resistant, adhering perfectly to all the conventional materials used for bonding.

N.B.: *Mixing **Kerabond** with **Isolastic** in place of water, the characteristics improve in order to meet the requirements of class C2 (improved cementitious adhesive) according to EN 12004 and those of class S2 (highly deformable adhesive) according to the European norm prEN 12002.*

RECOMMENDATIONS

Use **Kerabond** mixed with **Isolastic** in the following cases:

- on walls of foamed concrete;
- 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 material as long as they are stable and moisture proof.

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

- on wood substrates;
- on gypsum board walls;
- on metal, rubber, PVC and linoleum surfaces;
- where the surface must be set to light foot traffic rapidly;

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- for the installation of non-absorbent tiles (quarry tiles, single-fired tiles, klinker tiles, etc.).

APPLICATION PROCEDURE

Preparing the substrate

The substrates must be cured, mechanically strong, free of loose parts, 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** or **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 they be treated with **Primer G** or **Mapeprim SP**. Areas subject to high humidity should be primed with **Primer S**.

Preparing the mix

Kerabond must be mixed with clean water to obtain a homogenous paste free of lumps; after 5-10 minutes of resting, it must be re-mixed and the paste is then ready for use.

The quantity of water to be used is 23-26 parts per 100 parts (by weight) of **Kerabond** grey (equal to 5.7-6.5 litres of water for 25 kg of powder).

The quantity of water to be used is 24-27 parts per 100 parts (by weight) of **Kerabond** white (equal to 6-6.7 litres of water for 25 kg of powder).

The mix, produced in this way, is workable for at least 8 hours.

Applying the mix

Kerabond 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 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** using the smooth side of the trowel and immediately after apply the desired thickness of **Kerabond** 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 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 dm², floors to be polished after

installation or subject to heavy loads, **Kerabond** 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 dipped in clean water.

The tiles are normally installed under a firm pressure to ensure good contact with the adhesive.

Kerabond'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.

For this reason, 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 the 45 minutes following installation, after which time, adjustment will become problematic.

Tiling installed with **Kerabond** 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** has begun to set.

GROUTING AND SEALING

Wall joints between the 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.

READY FOR USE

Floors are ready for use after approx. 14 days.

Cleaning

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



Mix with stirrer



Open time still good



Open time expired

TECHNICAL DATA (typical values)

In compliance with:

- European EN 12004 as C1
- European EN 12004 as C2 (if mixed with Isolastic)
- European prEN 12002 as S2 (if mixed with Isolastic)
- DIN 18156 - M
- BS 5980 - 1980 type 1 Class AA
- American ANSI A 118.1 - 1999
- Canadian 71 GP 30 M type 2

PRODUCT IDENTITY:

Type:	powder
Colour:	white or grey
Density (apparent) (g/m ³):	1.30
Dry solid content (%):	100
Storage:	12 months in a dry place in original packaging
Hazard classification according to EEC 88/379:	none
Customs class:	3824 50 90

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

Mix ratio:	100 parts Kerabond white with 24-27 parts by weight of water 100 parts Kerabond grey with 23-26 parts by weight of water
Consistency of mix:	very viscous
Density of mix (g/cm ³):	1.45
pH of mix:	13
Pot life:	over 8 hours
Application temperature:	from +5°C to +40°C
Open time (according to EN 1346):	approx. 20 minutes
Adjustability time:	approx. 45 minutes
Wall grouting:	after 4-8 hours
Floor grouting:	after 24 hours
Set to light foot traffic:	24 hours
Ready for use:	14 days

FINAL PERFORMANCES:

Adhesion strength according to EN 1348 (N/mm ²)	
- initial adhesion strength (after 28 days):	1.4
- adhesion strength after heat:	0.9
- adhesion strength after water immersion:	1.0
- adhesion strength after freeze-thaw cycles:	1.2
Resistance to alkalis:	excellent
Resistance to oils:	excellent (poor for vegetable oils)
Resistance to solvents:	excellent
Temperature after final cure:	from -30°C to +90°C



Adjustability time up to approx. 45 minutes



Laying on gypsum treated with Primer G



Laying on an insulating layer of cork in a tunnel prefabricated building

N.B. The technical data of **Kerabond** mixed with **Isolastic** are on the latter's technical data sheet.

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All relevant references of the product are available upon request



Laying on exterior floor



Fixing wall-tiles



Exterior wall fixing

CONSUMPTION

Ceramic tiling

Mosaics and small size tiles (trowel No. 4): 2 kg/m²
 Normal size tiles (trowel No. 5): 2.5-3 kg/m²
 Large sizes, floors,

exteriors (trowel No. 6): 4 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 is supplied in white and grey in 25 kg paper bags;

4x5 kg carton boxes.

STORAGE

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

SAFETY INSTRUCTION FOR THE PREPARATION AND INSTALLATION

Contains cement that when in contact with sweat or other body fluids produces an irritant alkaline reaction. Use protective gloves and goggles. For further information refer to the safety data sheet.

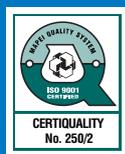
WARNING

N.B. - Although the technical details and recommendations contained in this product report 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 applications: 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.

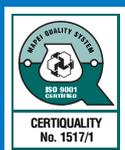


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101-9-2001