



Kerabond Plus

High-performance cementitious adhesive with extended open time for ceramic tiles and stone material

CLASSIFICATION ACCORDING TO EN 12004

Kerabond Plus is a C2E class cementitious (C), improved (2), extended open time (E) adhesive.

The conformity of Kerabond Plus is certified by the ITT No. 16/12733-1528 and No. 16/12733-1529 certificates issued by the APPLUS LGAI Technological Center, Bellaterra (Spain).

WHERE TO USE

Bonding all types of ceramic tile (porcelain, single-fired, terracotta, double-fired, klinker, etc.) and mosaic on internal and external floors, walls and ceilings. Also suitable for spot bonding insulating materials such as foam polystyrene, foam polyurethane, Rockwool, glass wool, soundproofing panels, etc.

Some application examples

- Bonding ceramic tiles, stone (if stable in damp environments) and mosaics on the following types of substrate:
 - walls with natural finish render or cementitious mortar;
 - internal cellular cement block walls;
 - gypsum and anhydrite primed with **Primer G**;
 - plasterboard;
 - heated floors;
 - well cured, dry cementitious screeds and screeds made from special binders (such as **Topcem** and **Mapecem**).

TECHNICAL CHARACTERISTICS

Kerabond Plus is a grey or white-coloured powder

made from cement, selected graded sand, synthetic resin and special additives according to a formula developed in the MAPEI research laboratories. When mixed with water, it forms mortar with the following characteristics:

- good workability;
- perfect adhesion to all materials normally used in the building industry;
- hardens with very little shrinkage.

N.B.: When **Kerabond Plus** is mixed with **Isolastic** instead of water, its characteristics are improved to meet the requirements of class C2ES2 adhesive (highly deformable, improved cementitious adhesive with extended open time) according to EN 12004.

RECOMMENDATIONS

Do not use **Kerabond Plus**:

- on prefabricated and cast concrete;
- on walls and floors subject to large movements or vibration (wood, fibre-cement, etc.);
- on metal surfaces.

APPLICATION PROCEDURE

Substrate preparation

Substrates on which **Kerabond Plus** is to be applied must be flat, strong, have no crumbling areas and have

no traces of grease, oil, varnish, wax, etc. Cementitious substrates must not shrink after laying tiles. Therefore, in good weather, render must be cured for at least one week per cm of thickness, while cementitious screeds must be cured for at least 28 days, unless they are made from MAPEI special screed binders such as **Mapecem**, **Mapecem Pronto**, **Topcem** or **Topcem Pronto**. If the surface is too hot due to direct sunlight, cool it down with water. Gypsum substrates and anhydrite screeds must be perfectly dry (maximum residual moisture content 0.3%), hard enough for the final intended use, free of dust and treated with **Primer G** or **Eco Prim T**.

Preparation of the mix

Blend **Kerabond Plus** with clean water to obtain a smooth, lump-free mix. Let the mix stand for around 5 minutes and blend again. The amount of water required varies from 27-29 parts per 100 parts in weight, equal to 6.8-7.3 litres of water every 25 kg of **Kerabond Plus**.

When blended as described above, the mix lasts for approximately 8 hours.

Spreading the mix

Apply **Kerabond Plus** on the substrate using a notched trowel. Use a trowel that allows at least 65-70% of the back of the tiles to be wetted for wall tiles or for internal floors with only light traffic and 100% for areas with heavy traffic or for external floors.

To guarantee a good bond, apply a thin layer of **Kerabond Plus** on the substrate using the smooth side of the spreader and then immediately apply a second layer of **Kerabond Plus** to form the thickness required using a notched spreader suitable for the type and size of tiles to be bonded (see "Consumption" section). For external floors and ceramic tiles, or when bonding tiles in swimming pools or water tanks, make sure the adhesive completely covers the back of the tiles.

Bonding tiles

Tiles do not need to be wet before they are laid. However, if the backs of the tiles are particularly dusty, wash them by dipping them in clean water. When bonding tiles apply firm pressure to guarantee good buttering. The open time for **Kerabond Plus** is approximately 30 minutes in normal weather conditions. When laying conditions are not ideal (direct sunlight, dry wind, high temperatures, etc.), or if the substrate is particularly absorbent, this time may drop to just a few minutes. Therefore, check often to make sure skin does not form on the surface of the adhesive and that it is still fresh. If skin forms, spread the adhesive again with the notched trowel. Do not wet the surface of the adhesive if a skin forms. Water does not dissolve the skin and impedes correct adhesion. Final adjustment of the tiles must be carried out within 60 minutes of bonding. Tiles and stone bonded with **Kerabond Plus** must be protected from water and rain for at

least 24 hours, and from freezing weather and direct sunlight for at least 5 to 7 days.

Grouting and sealing

Tile joints may be grouted after 4 to 8 hours on walls and after 24 hours on floors. Use a MAPEI cementitious or epoxy grout, available in a wide variety of colours.

Seal expansion joints using a suitable MAPEI sealant.

Spot-bonding insulating materials

When bonding insulating or soundproofing panels, apply spots of **Kerabond Plus** with a trowel or spreader.

SET TO FOOT TRAFFIC

Floors may be stepped on after approx. 24 hours.

WAITING TIME BEFORE PUTTING INTO SERVICE

Surfaces may be put into service after approx. 14 days.

Cleaning

Clean tools and containers with water while **Kerabond Plus** is still fresh. Clean the surface of tiles with a damp cloth before the adhesive hardens.

CONSUMPTION

Bonding ceramics

- Mosaic and small tiles in general (No. 4 spreader): 2 kg/m²
- Normal size tiles (No. 5 spreader): 2.5-3 kg/m²
- Large tiles, external floors (No. 6 spreader): 5 kg/m²

Spot-bonding insulating material

- Foam sheets, etc.: approx. 0.5-0.8 kg/m²
- Plasterboard and expanded cement panels: approx. 1.5 kg/m²

PACKAGING

Kerabond Plus is available in white or grey in 25 kg paper bags.

STORAGE

Kerabond Plus may be stored for 12 months in its original packaging in a dry place.

This product conforms to the prescriptions of Reg. (EC) N. 1907/2006 (REACH) - Annex XVII, item 47.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Kerabond Plus contains cement that when in contact with sweat or other body fluids causes irritant alkaline reactions and allergic reactions to those predisposed. It can cause damage to the eyes.

When using the product wear protective gloves and goggles and take the usual precautions for handling chemicals. If the product comes in contact with the eyes or

TECHNICAL DATA (typical values)

Complies with the following standards:

- Euronorm EN 12004 (C2E)
- Euronorm EN 12004 (C2ES1)
(if mixed with Isolastic diluted 1:1 with water)
- Euronorm EN 12004 (C2ES2) (if mixed with neat Isolastic)
- ISO 13007-1 (C2E)
- ISO 13007-1 (C2ES1)
(if mixed with Isolastic diluted 1:1 with water)
- ISO 13007-1 (C2ES2) (if mixed with neat Isolastic)

PRODUCT IDENTITY

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

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

Mixing ratio:	100 parts in weight of Kerabond Plus with 27-29 parts in weight of water
Consistency of mix:	thick paste
Density of mix (kg/m ³):	1,450
pH of mix:	13
Pot life of mix:	more than 8 hours
Application temperature:	+5°C to +40°C
Open time (according to EN 1346):	30 minutes
Adjustment time:	approx. 60 minutes
Grouting joints in wall tiles:	after 4-8 hours
Grouting joints in floor tiles:	after 24 hours
Set to foot traffic:	24 hours
Ready for service:	14 days

FINAL PERFORMANCE

Adhesion according to EN 1348 (N/mm ²)	
- initial adhesion (after 28 days):	2.0
- adhesion after application of heat source:	1.1
- adhesion after immersion in water:	1.4
- adhesion after freeze-thaw cycles:	1.7
Resistance to alkalis:	excellent
Resistance to oils:	excellent (poor for vegetable oils)
Resistance to solvents:	excellent
Service temperature:	from -30°C to +90°C

N.B. The figures for **Kerabond Plus** mixed with **Isolastic** are shown on the **Isolastic** Technical Data Sheet.

Kerabond Plus

skin, wash immediately with plenty of water and seek medical attention. For further and complete information about the safe use of our product please refer to the latest version of our Material 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

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 force at the time of the MAPEI product installation.

The most up-to-date TDS can be downloaded from our website www.mapei.com.

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.



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



BUILDING THE FUTURE