



Kerafloor



Cementitious adhesive for ceramic tiles for thicknesses up to 15 mm



CLASSIFICATION IN COMPLIANCE WITH EN 12004

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

WHERE TO USE

- Interior and exterior bonding of tiles and strip tiles (grès, klinker, single-fired) with high lugs and ribs.
- Interior and exterior bonding of tiles (double fired, single-fired, cotto toscano, hand-made) and also where they are of various thicknesses or twisted.

Some application examples

- Installing extruded klinker tiles or tiles with deep recessed backs on ordinary renders and substrates.
- Installing large-size double-fired and single-fired tiles (over 30 by 30 cm) in interiors on cement substrates.
- Installing natural stone and ceramic tiles with large thickness variations on ordinary substrates.
- Installing ceramic tiles on irregular substrates with beds up to 15 mm thick without preliminary levelling.

TECHNICAL CHARACTERISTICS

Kerafloor is a grey or white powder composed of cement, silica sand with particularly large grain sizes, synthetic resins and special additives,

according to a formula developed in the MAPEI research laboratories.

Mixed with water, **Kerafloor** becomes an easily trowellable mortar that can be used on both horizontal and vertical surfaces. **Kerafloor** hardens without significant shrinkage and without reductions in thickness.

It becomes very resistant and adheres perfectly to all conventional building materials.

Kerafloor mixed with **Isolastic** in substitution of water, improves characteristics to meet the requirements of class C2 (improved cementitious adhesive) according to EN 12004 and those of class S2 (highly deformable adhesive) according to EN 12002.

RECOMMENDATIONS

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

- on foamed concrete walls;
- on precast concrete structures or cast in situ;
- on underfloor heating installations;
- with large-size tiles on substrates subject to movement.

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

- for installing stone material subject to movement due to moisture;



Kerafloor



Spreading the preliminary skim-coat



Spreading with the semicircular-notched trowel



Insufficient coverage



Correct coverage

- for installing stone material subject to efflorescences or stains;
- on wood;
- on metal, rubber, PVC, and linoleum surfaces;
- for installing over existing flooring.

APPLICATION PROCEDURE

Preparing the substrates

All substrates that will receive **Kerafloor** must be flat, mechanically strong, free from loose parts, grease, oil, paint, wax, etc.

Cementitious substrates must not be subject to shrinkage once the tiles have been installed, therefore in warm weather renders should be cured at least one week per centimetre of thickness. Cementitious screeds must have an overall cure of at least 28 days unless they have been made with the special MAPEI binders for screeds such as **Mapecem**, **Topcem** or **Topcem Pronto**.

Cool surfaces that are too hot due to exposure to direct sunlight by dampening them with water.

Gypsum substrates and anhydrite screeds must be perfectly dry (maximum residual moisture 0.5%), sufficiently hard and free from dust. They must be absolutely treated with **Primer G** or **Mapeprim SP**. Areas subject to extreme damp must be primed with **Primer S**.

Preparing the mix

Kerafloor is mixed with clean water until it becomes a smooth lump-free paste. After 5 to 10 minutes of slackening, it should be stirred again, after which it is ready for use.

The mixing ratio is 24 parts of water to 100 parts of **Kerafloor** (by weight) equal to 6 litres of water to 25 kg of **Kerafloor**. The **Kerafloor** mix thus obtained remains trowellable for at least 8 hours.

Applying the mix

Kerafloor is applied to the substrate with a notched trowel.

The general principle to follow when selecting the right trowel is to choose one that gives a coverage to at least 65-70% of the back of the tiles for internal walls and light traffic areas and 100% coverage for heavy traffic areas and all external work. To achieve a good adhesion, first spread a thin coat of **Kerafloor** onto the substrate using the straight edge of the trowel followed immediately with the correct thickness, depending on the type and size of the tile.

The trowel most commonly used with **Kerafloor** is a trowel with 15 mm semicircular notches.

In situations where there must be no voids behind the tiles (spacers, dove-tails etc.) or uneven backs, the backs of the tiles must be covered with the **Kerafloor** mix (back-buttering method). Back-buttering is

always recommended for tiles larger than 900 cm² (30x30).

Installing the tiles

It is not necessary to wet the tiles before installing. 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.

The open time of **Kerafloor** in normal temperature and humidity conditions is 20 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 form, the adhesive must be re-trowelled. It is not recommended to wet the adhesive when it has formed a skin because, instead of dissolving the skin, a non-adhesive film will be formed.

Any necessary adjustment of the tiles should be carried out within the 45 minutes following installation, after which time adjustment becomes difficult.

Tiles installed with **Kerafloor** must not be subjected to washout or rain for at least 24 hours, and must be protected from frost and hot sun for at least 5 to 7 days after installation.

GROUTING AND SEALING

Wall joints can be grouted after 6-8 hours and floor joints after 24-36 hours with the special MAPEI cementitious or epoxy grouts, available in different colours. Expansion joints must be sealed with the special MAPEI sealants.

SET TO LIGHT FOOT TRAFFIC

Floors are set to light foot traffic after 24-36 hours.

READY FOR USE

Surfaces are ready for use after approximately 14 days.

Cleaning

Tools can be cleaned with water. Surfaces should be cleaned with a damp cloth: water may be used only in moderate quantities and after a few hours.

CONSUMPTION

Approximately 1.4 kg of **Kerafloor** per m² and mm of thickness.

Consumption depends on substrate conditions, on the type of tile and on the trowel notches and generally varies between 4 and 10 kg/m².

PACKAGING

Kerafloor grey and white is supplied in 25 kg bags.

STORAGE

12 months in a dry place in original packing.

TECHNICAL DATA (typical values)

Conformity with:

- European EN 12004 as C1
- European EN 12004 as C2 (if mixed with Isolastic)
- European EN 12002 as S2 (if mixed with Isolastic)
- American ANSI A118.1 - 1999
- Canadian 71 GP 30 M type 2

PRODUCT IDENTITY

Type:	powder
Colour:	grey or white
Bulk density (kg/m ³):	1620
Dry solids content (%):	100
Storage:	12 months in a dry place in the original packing
Hazard classification according to EC 99/45:	irritant. Before using refer to the "Safety Instructions for the preparation and application" paragraph and the information on the packing and safety data sheet
Customs class:	3824 50 90

APPLICATION DATA at +23°C - 50% R.H.

Mixing ratio:	100 parts of Kerafloor with 24 parts of water (by weight)
Consistency of mix:	very pasty
Density of the mix (kg/m ³):	1700
pH of mix:	over 12
Pot life:	over 8 hours
Application temperature range:	from +5°C to +40°C
Open time (according to EN 1346):	> 20 minutes
Adjustability time:	approx. 45 minutes
Wall grouting:	after 6-8 hours
Floor grouting:	after 24-36 hours
Set to light foot traffic:	after 24-36 hours
Ready for use:	after 14 days

FINAL PERFORMANCES

Tensile adhesion strength according to EN 1348 (N/mm ²):	
- initial (after 28 days):	1.3
- after heating:	0.7
- after water immersion:	0.8
- after freeze-thaw cycles:	0.9
Resistance to alkali:	excellent
Resistance to oils:	excellent (poor to vegetable oils)
Resistance to solvents:	excellent
Temperature when in use:	from -30°C to +90°C



Back-buttering ribbed extruded tiles



Laying extruded tiles



Laying 60x60 cm single-fired tiles



Laying granite

Kerafloor

All relevant references of the product are available upon request



An example of an installation of porcelain tiles - Fiumicino airport Rome (Italy)



An example of an installation of "Alicante" stone with Kerafloor + Isolastic - San Francesco of Paola sanctuary - Paola - Cosenza (Italy)

SAFETY INSTRUCTIONS FOR THE PREPARATION AND APPLICATION

Contains cement, that in contact with sweat or other body fluids produces an irritant alkaline reaction and allergic reactions to those predisposed. Use protective gloves and goggles. For further information consult the safety data sheet.

FOR PROFESSIONALS.

WARNING

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, is fully responsible for any consequences deriving from the use of the product.



IL PARTNER MONDIALE DEI COSTRUTTORI

SISTEMI DI GESTIONE CERTIFICATI DEL GRUPPO MAPEI (Qualità, Ambiente e Sicurezza)

MAPEI S.p.A. - ITALY				MAPEI CORP - U.S.A.	MAPEI FAR EAST Pte Ltd MAPEI MALAYSIA SDN BHD	MAPEI s.r.o. - CZECH REP.	
MAPEI FRANCE	MAPEI INC - CANADA	RESCON MAPEI AS - NORWAY		MAPEI Kft. - HUNGARY	MAPEI ARGENTINA S.A.	MAPEI SUISSE SA	

www.mapei.com



(GB) A.G. BETA

Any reproduction of texts, photos and illustrations published here is prohibited and subject to prosecution

105-12-2004