Kerafloor is a normal (1) cementitious (C) adhesive of class C1. Conformity of Kerafloor is declared in ITT certificates n° 25050161/Gi and n° 25080270/Gi (TUM) issued by the Technische Universität München laboratory (Germany).

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 irregular.

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.

N.B.: Kerafloor mixed with Isolastic in substitution of water, improves characteristics to meet the requirements of class C2ES2 (highly deformable improved cementitious adhesive with extended open time according to EN 12004).

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-format tiles on substrates subject to movement.

Do not use Kerafloor in the following cases:
- for installing stone material subject to movement due to moisture;
- for installing stone material subject to efflorescence or staining;
• 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, Mapecem Pronto, 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 (max. residual moisture 0.5%), sufficiently hard and free of dust. They must be treated with Primer G or Eco Prim T, while areas subject to high humidity must be treated 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
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 approx. 25 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, 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. The product complies with the conditions of Annex XVII to Regulation (EC) N° 1907/2006 (REACH), item 47.
## TECHNICAL DATA (typical values)

Conformity with:
- European EN 12004 as C1
- European EN 12004 as C2ES2 (if mixed with Isolastic)
- ISO 13007-1 as C2ES2

## PRODUCT IDENTITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>powder</td>
</tr>
<tr>
<td>Colour</td>
<td>grey or white</td>
</tr>
<tr>
<td>Bulk density (kg/m³)</td>
<td>1620</td>
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<tr>
<td>Dry solids content (%)</td>
<td>100</td>
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<td>EMICODE</td>
<td>EC1 R Plus - very low emissions</td>
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## APPLICATION DATA (at +23°C - 50% R.H.)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixing ratio</td>
<td>100 parts of Kerafloor with 25 parts of water (by weight)</td>
</tr>
<tr>
<td>Consistency of mix</td>
<td>very pasty</td>
</tr>
<tr>
<td>Density of the mix (kg/m³)</td>
<td>1700</td>
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<tr>
<td>pH of mix</td>
<td>over 12</td>
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<tr>
<td>Pot life</td>
<td>over 8 hours</td>
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<tr>
<td>Application temperature range</td>
<td>from +5°C to +40°C</td>
</tr>
<tr>
<td>Open time (according to EN 1346):</td>
<td>&gt; 20 minutes</td>
</tr>
<tr>
<td>Adjustability time</td>
<td>approx. 45 minutes</td>
</tr>
<tr>
<td>Wall grouting</td>
<td>after 6-8 hours</td>
</tr>
<tr>
<td>Floor grouting</td>
<td>after 24-36 hours</td>
</tr>
<tr>
<td>Set to light foot traffic</td>
<td>after 24-36 hours</td>
</tr>
<tr>
<td>Ready for use</td>
<td>after 14 days</td>
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## FINAL PERFORMANCES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Adhesion strength according to EN 1348 (N/mm²):</td>
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<tr>
<td>- initial (after 28 days):</td>
<td>1.3</td>
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<tr>
<td>- after heating:</td>
<td>0.7</td>
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<tr>
<td>- after water immersion:</td>
<td>0.8</td>
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<tr>
<td>- after freeze-thaw cycles:</td>
<td>0.9</td>
</tr>
<tr>
<td>Resistance to alkalis:</td>
<td>excellent</td>
</tr>
<tr>
<td>Resistance to oils:</td>
<td>excellent (poor to vegetable oils)</td>
</tr>
<tr>
<td>Resistance to solvents:</td>
<td>excellent</td>
</tr>
<tr>
<td>Temperature when in use:</td>
<td>from −30°C to +90°C</td>
</tr>
</tbody>
</table>
SAFETY INSTRUCTIONS FOR THE PREPARATION AND APPLICATION

Kerafloor is irritant, it 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. 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 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