



Keraflex Maxi



**High performance
cementitious adhesive
for thicknesses from 3 to
15 mm, with no vertical
slip and extended open
time for ceramic tiles
and stone material**

CLASSIFICATION IN COMPLIANCE WITH EN 12004

Keraflex Maxi is an improved (2) slip resistant (T) cementitious adhesive (C) with extended open time (E) of class C2TE.

CLASSIFICATION IN COMPLIANCE WITH EN 12002

Keraflex Maxi is a deformable adhesive of class S1.

WHERE TO USE

- Interior and exterior bonding, up to 15 mm thick, of ceramic tiles of every type and size on uneven substrates and renders, without having to level the flooring beforehand.
- Interior and exterior bonding of stone material (as long as they are not absorbent).
- Spot bonding of insulating material such as expanded polystyrene, rock and glass wool, Eraclit® (wood-cement panels), sound-deadening panels, cork, etc.

Some application examples

- Bonding ceramic tiles (double-fired, single-fired, grès, klinker) and stone material (as long as they are not absorbent) on conventional substrates such as:
 - Cement screeds and underfloor heating installations.
 - Cement renders or lime and cement mortar.
 - Gypsum board as long as firmly fixed.
- Ceramic and stone material tiles on existing flooring (ceramic, marble, etc.).
- Installation of floors subject to heavy traffic.



Keraflex Maxi



External installation of klinker tiles



Installation of hand made terracotta on an uneven substrate



External installation of relief "graniglie"

- Installation of floor and wall coverings on substrates waterproofed with **Mapelastic**.
- Interior and exterior bonding of tiles or strips (porcelain tiles, klinker, single-fired, terracotta) with highly profiled ribs or lugs.

TECHNICAL CHARACTERISTICS

Keraflex Maxi is a grey powder composed of cement and fine graded sands. It contains a high quantity of synthetic resins and special additives according to a formulation developed in MAPEI's research laboratories. A mortar with the following features is obtained when mixed with water:

- Low viscosity, therefore easily workable.
- Highly thixotropic: **Keraflex Maxi** can be applied on a vertical surface without sagging or letting even heavy and large tiles slip. Tiles can be installed from the top towards the bottom without using spacer pegs.
- Fair capability of substrate and tile deformability.
- Perfect adherence to all materials normally used in building.
- Hardens, even when very thickly applied, without appreciable shrinkage and without decreasing in thickness, until acquiring a considerable resistance.
- Particularly extended open and adjustability time, facilitating installation.

RECOMMENDATIONS

Do not use **Keraflex Maxi** in the following cases:

- On wood or wooden conglomerates.
- On metal, rubber, PVC and linoleum surfaces.
- With marble natural stone slabs subject to efflorescence or stains.
- With natural or artificial stone material slabs subject to movement due to moisture.
- On precast concrete or subject to strong movement.
- When surfaces must be ready for traffic in a short time.

APPLICATION PROCEDURE

Preparing the substrate

All substrates receiving **Keraflex Maxi** must be cured, mechanically resistant, free of cracks, solid and free of loose parts, clean, free of oil, grease, wax and dust.

Cement substrates should not be subject to shrinkage after the installation of ceramic tiles, therefore during spring and summer, renders must cure at least one week for each cm of thickness and cement screeds must have an overall cure time of at least 28 days, unless they are made with special binders for MAPEI screeds such as **Mapecem**, **Topcem** or **Topcem Pronto**.

Dampen with water to cool surfaces heated from 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 **Mapecrim SP**, while areas subject to extreme dampness must be primed with **Primer S**.

Preparing the mix

Mix **Keraflex Maxi** with clean water until a smooth, lump-free paste is obtained. Leave to rest approximately 5 minutes and re-stir.

Use 28 parts water for every 100 parts by weight of **Keraflex Maxi**, which is equal to approx. 7 litres of water for every 25 kg of powder.

Mixed this way, **Keraflex Maxi** has a pot life of approximately 8 hours.

Applying the mix

Keraflex Maxi is applied to the substrate using a notched trowel. Choose a trowel that allows for a complete coverage to the backs of the tiles to be installed.

To achieve a good adhesion, spread a first thin layer of **Keraflex Maxi** on the substrate using the straight edge of the trowel. Immediately after, apply the desired thickness of **Keraflex Maxi** using a suitable notched trowel, depending on the type and size of the tiles.

For outdoor ceramic tile floors and walls, sizes greater than 900 cm², floors that must be smoothed at installation or subject to heavy loads, or when applying in swimming pools and basins filled with water, spread the adhesive on the back of the tile (back-buttering) in order to ensure a complete coverage.

Installing the tiles

There is no need to wet the tiles before installing them. Only with very dusty backs is it recommended to dip the tiles in clean water.

Tiles should be installed under a firm pressure to ensure a good coverage of the adhesive.

In normal temperature and humidity conditions, the open time of **Keraflex Maxi** is at least 30 minutes. Unfavourable weather conditions (strong sun, drying wind, high temperatures, etc.) or a highly absorbent substrate can reduce the open time, even to just a few minutes.

Careful checks must be made to ensure that a skin does not form on the surface of the spread adhesive, which should stay fresh. If not, re-freshen the adhesive by re-spreading with a notched trowel. It is not recommended to wet the adhesive with water once a skin has formed because, instead of dissolving the skin, the water will form an anti-adhesive film.

If necessary, tiles should be adjusted within 60 minutes after installation.

Tiling installed with **Keraflex Maxi** must not be washed or exposed to rain for at least 24 hours and must be protected from frost and strong sun for at least 5-7 days.

Spot-bonding insulating materials

For spot-bonding sound-deadening or insulating panels, apply **Keraflex Maxi** with a

TECHNICAL DATA (typical values)

In compliance with:

- European EN 12004 such as C2TE
- 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:	grey
Density (apparent) (g/cm ³):	1.40
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.:

Mixing ratio:	100 parts Keraflex Maxi with 27-29 parts water by weight
Consistency of mix:	pasty
Density of mix (g/cm ³):	1.50
pH of mix:	over 12
Pot life:	over 8 hours
Application temperature:	from +5°C to +40°C
Open time (acc. EN1346):	> 30 minutes
Adjustability time:	approx. 60 minutes
Ready for grouting on walls:	after 4-8 hours depending on absorbency
Ready for grouting on floors:	after 24 hours
Set to light foot traffic:	24 hours
Ready for use:	14 days

FINAL PERFORMANCES:

Tensile adhesion strength in compliance with EN 1348 (N/mm ²):	
– initial tensile adhesion strength (after 28 days):	2.6
– tensile adhesion strength after heat ageing:	2.5
– tensile adhesion strength after water immersion:	1.1
– tensile adhesion strength after freeze/thaw cycles:	1.3
Resistance to alkali:	excellent
Resistance to oils:	excellent (poor to vegetable oils)
Resistance to solvents:	excellent
Temperature in use:	from –30°C to +90°C
Deformability according to EN 12002:	S1 - deformable

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trowel or a float, in the necessary thickness required by the levelness of the surfaces and by the weight of the brush.

GROUTING AND SEALING

Wall joints 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

Floors are set to light foot traffic after approx. 24 hours.

POLISHING

Surfaces can be polished after approximately 14 days.

READY FOR USE

Surfaces are ready for use after approximately 14 days.

Cleaning

Tools and containers should be cleaned with plenty of water while **Keraflex Maxi** is still fresh. Surfaces should be cleaned with a damp cloth, before the adhesive dries.

COVERAGE

Bonding ceramic tiles

– 1.5 kg/m² per mm of thickness.

Bonding panels

- Applied with a trowel approx. (rounded notch): 6-7 kg/m²
- Spot-bonding with a trowel: 4-6 kg/m²

PACKAGING

Keraflex Maxi is available in 25 kg bags.

STORAGE

Keraflex can be stored 12 months in a dry place in original packaging.

SAFETY INSTRUCTIONS FOR THE PREPARATION AND INSTALLATION

The product 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, consult the safety data sheet.

FOR PROFESSIONALS.

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.

All relevant references of the product are available upon request

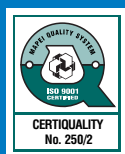


Installation of external hewn back stones with or without buttering, depending on thickness



BUILDING THE FUTURE

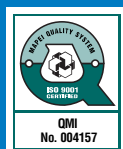
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