

KERAFLEX

High-performance cementitious adhesive with no vertical slip and extended open time for ceramic and stone tiles.



CLASSIFICATION IN COMPLIANCE WITH UKCA AND CE EN 12004

Keraflex is a Cementitious (C), Improved (2), Reduced Slip (T), Extended open time (E) adhesive classified as C2TE available in Grey and White.

Conformity of **Keraflex** is declared in TT certificates n° 25040476/Gi (TUM) and TT n° 25080239/Gi (TUM) issued by the Technische Universität München laboratory (Germany) and in TT certificates n° 1220.12/10/R03 NPU; 1220.14/10/R03 NPU; 1220.11/10/R03 NPU and 1220.13/10/R03 NPU issued by the Istitute ITB Katowice (Poland)

WHERE TO USE

Interior and exterior bonding of ceramic tiles, porcelain, natural stone materials (not sensitive to moisture) and mosaics on floors and walls. Also suitable for spot bonding of insulating materials such as expanded polystyrene, rock and glass wool, Eraclit® (wood-cement panels), sound-deadening/ reduction panels, etc.

Some application examples

- Bonding ceramic tiles, natural stone and mosaics on the following substrates:
 - cement rendered walls;
 - interior aerated concrete block walls;
 - gypsum or anhydrite after having first applied **Primer G** or **Eco Prim T Plus**;
 - underfloor heating installations;
 - cement screeds;
 - interior painted walls, as long as the paint is firmly anchored and resistant to alkalis;
 - waterproof membranes of **Mapelastic**, **Mapegum WPS** or **Mapelastic AquaDefense**.
- Tiling over existing floor tiles, when primed with **Eco Prim Grip Plus** (Maximum tile size for tile on tile 300 x 300 mm).
- Bonding small format tiles in swimming pools and water features.
- Bonding tiles to floors subject to heavy loading.

RECOMMENDATIONS

Do not use **Keraflex**:

- On concrete subject to shrinkage.
- On metal surfaces.
- For installations that require an adhesive thickness greater than 5 mm.
- On walls and floors subject to strong movement or vibration.

APPLICATION PROCEDURE

Preparation of the substrate

The substrate must be flat, free of contamination, loose particles, grease, oils, paints, wax, etc. Damp substrates can slow down the curing of **Keraflex**.

Cement substrates should not continue to shrink after the installation of the ceramic tiles. Renders must cure at least 2 weeks and cement screeds must have an overall cure time of at least 3 weeks, unless they are produced with special binders such as **Mapecem**, **Mapecem Pronto**, **Topcem** or **Topcem Pronto**. Concrete substrates must be at least 6 weeks old.

Dampen with water to cool surfaces which have become heated from exposure to sunlight.

Gypsum plaster and anhydrite screeds must be perfectly dry (max. residual moisture 0.5%), sufficiently hard and free from laitance. Mechanically abrade anhydrite screeds to remove all laitance, vacuum and prime. It is essential that they be treated with Primer G (neat) or Eco Prim T Plus (diluted 1:2 with water).

Heated screeds must be commissioned in accordance with recognised technical regulations and the guidelines given in BS 5385 parts 3, 4 and 5.

Mixing

Mix **Keraflex** with clean water until a smooth, lump-free paste is obtained. Leave to rest approximately 5 minutes and re-stir. Use 25-27 parts water for every 100 parts by weight of **Keraflex** Grey and 26-28 parts water for every 100 parts by weight of **Keraflex** White, which is equal to approx. 5.0-5.4 litres of water for every 20 kg of grey powder, and 5.2-5.6 litres of water for every 20 kg of White powder. Mixed this way, **Keraflex** has a pot life of approximately 8 hours.

Applying the product

Keraflex is applied to the substrate using a notched trowel. Choose a trowel that gives the correct coverage to the tile back, depending on the expected service conditions.

To achieve good adhesion, spread an initial thin layer of **Keraflex** on the substrate using the flat side of the trowel. Immediately, apply **Keraflex** using a suitable notched trowel, depending on the type and size of the tiles (see "Consumption").

For external ceramic tiling, tiles greater than 300x300 mm, floors subject to heavy loads, when applying in swimming pools and water features, spread the adhesive on the back of the tile (back-buttering) in order to ensure complete coverage. Maximum bed depth of 5 mm.

Installing tiles.

Do not wet the tiles before installing them. Only with very dusty backs is it recommended to dip the tiles in clean water. Allow to dry before fixing.

Tiles should be installed with firm pressure to ensure good coverage with the adhesive.

Ensure that a minimum coverage of 65-70% to the back of the tile is achieved in dry wall areas with 100%, as far as possible, in wet wall areas, on floors and in exteriors (walls and floors).

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

It is therefore necessary that careful checks are made to ensure that a skin does not form on the surface of the spread adhesive.

It is not recommended to wet the adhesive with water once a skin has formed because, the water will form an anti-adhesive film.

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

Spot-bonding insulating materials

For spot-bonding sound-deadening or insulating panels, apply **Keraflex** with a trowel or a float.

GROUTING AND MOVEMENT JOINTS

Wall joints can be grouted after 4-8 hours and floor joints can be grouted after 24 hours with the relevant MAPEI cementitious or epoxy grouts, available in different colours. Expansion joints must be sealed with a suitable MAPEI sealant.

Mapesil AC silicone sealant is available in matching colours to grout. Use **Mapesil LM** for natural stone.

SET TO LIGHT FOOT TRAFFIC

Floors are able to take light foot traffic after approx. 24 hours.

TECHNICAL CHARACTERISTICS

Keraflex is a grey or white powder composed of cement and graded aggregates. It contains a high quantity of synthetic resins and special additives created according to a formula developed in MAPEI R&D Laboratories.

A mortar with the following features is obtained when mixed with water:

- Easily workable.
- Highly thixotropic; **Keraflex** can be applied on a vertical surfaces without slump or tile slip, even with heavy tiles. Tiles can be installed from the top towards the bottom without using spacer pegs;
- Perfect adhesion to all materials normally used in building.
- Hardens with minimal controlled shrinkage.
- Extended open time.
- Water and frost resistant.

- Excellent bond strength

READY FOR USE

Tiling installed with **Keraflex** 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. Surfaces are ready for use after approx. 14 days. Swimming pools and water features can be filled after 21 days.

CLEANING

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

CONSUMPTION

Bonding ceramic tiles:

- Mosaics and small sizes in general: 2 kg/m²
- Normal sizes: 2.5-3 kg/m²
- Large sizes, exterior floors: 5 kg/m²

PACKAGING

Keraflex white and grey is available in 20 kg paper bags.

STORAGE

Keraflex can be stored 12 months in a normal environment in original packaging. Protect from humidity.

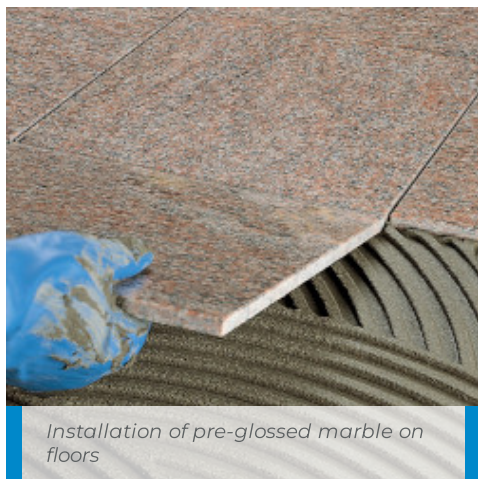
SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.co.uk.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values) In compliance with: · European EN 12004 and ISO 13007-1 · UKCA 12004	
PRODUCT IDENTITY	
Consistency:	powder
Colour:	white or grey
Bulk density (kg/m³):	1,300
Dry solids content (%):	100
EMICODE:	EC1 Plus - very low emission
APPLICATION DATA (at +23°C and 50% R.H.)	
Mixing ratio:	25-27 parts water for every 100 parts by weight of Keraflex Grey , 26-28 parts water for every 100 parts by weight of Keraflex White
Consistency of the mix:	smooth paste
Density of the mix (kg/m³):	1,500
pH of mix:	13

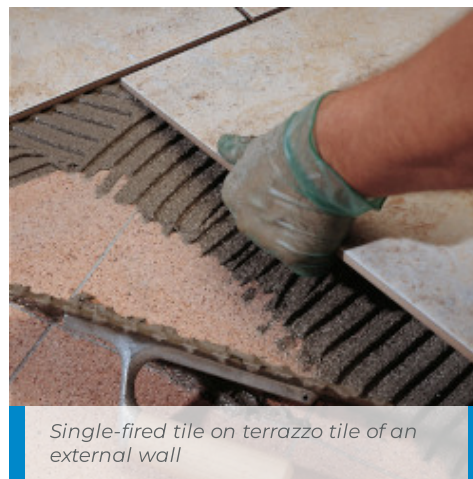
Pot life:	4-8 hours
Application temperature range:	from +5°C to +40°C
Open time (according to EN 1346):	> 30 minutes
Adjustability time:	approx. 60 minutes
Ready for grouting on walls:	after 8 hours
Ready for grouting on floors:	after 24 hours
Set to light foot traffic:	24 hours
Ready for use:	14 days
FINAL PERFORMANCES	
Bonding strength according to EN 1348 (N/mm ²): - initial bonding (after 28 days): - bonding after heat exposure: - bonding after immersion in water: - bonding after freeze/thaw cycles:	2.2 2.0 1.5 1.7
Resistance to alkalis:	excellent
Resistance to oils:	excellent (poor to vegetable oils)
Resistance to solvents:	excellent
Temperature when in use:	from -30°C to +90°C



Installation of pre-glossed marble on floors



Installation of single-fired tile on expanded foam concrete block walls



Single-fired tile on terrazzo tile of an external wall



Tile on tile with Keraflex grey

N.B.

Whilst we try to ensure that any advice, recommendations or information given in our literature is accurate and correct, we have no control over the circumstances in which our product is used. It is therefore important that the end users satisfy themselves that the product and conditions are suitable for the envisaged application.

No warranty can be given or responsibility accepted other than, that the product supplied by us will meet our written specification.

End users should ensure that our latest product data and safety information sheets have been consulted prior to use. Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.co.uk.

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.co.uk.

106-03-2022 (UK)

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

