

Keraset



Cement based adhesive for ceramic tiles



CLASSIFICATION IN COMPLIANCE WITH EN 12004

Keraset is a normal cementitious adhesive of class C1.

Keraset is CE marked, as declared in **ITT** certificate n° **71230101.101 (SFV)** issued by the *Säurefließner-Vereinigung E.V. Grossburgwedel laboratory (Germany)*.

WHERE TO USE

- Internal and external bonding of ceramic tiles and mosaics, single-fired and double-fired tiles for floors, walls and ceilings.

Some application examples

Bonding of ceramic mosaics on paper or mesh, absorbent single-fired or double-fired ceramic tiles on:

- traditional render or cement mortar;
- ordinary or floating reinforced, cement screeds provided they are sufficiently cured and dry.

TECHNICAL CHARACTERISTICS

Keraset is a grey or white powder composed of cement, sands of selected granulometry, synthetic resins and special additives according to a formula developed in MAPEI's research laboratories.

Keraset, mixed with water, becomes an easily workable mortar, that can be applied even vertically without slumping and without letting the tiles slip.

Keraset hardens without appreciable shrinkage attaining a good resistance, adhering perfectly to all materials normally used in the building industry.

RECOMMENDATIONS

Do not use **Keraset**:

- on wood and wooden mixtures;
- on gypsum board or light weight concrete walls;
- on metal, rubber, PVC and linoleum surfaces;
- for the installation of glass mosaics;
- for the installation of tiles that require an adhesive thickness greater than 5 mm;
- with large size tiles;
- on pre-cast concrete or subject to strong movements;
- on heated or existing floors;
- in cases where the surface needs to be set to light traffic quickly.

APPLICATION PROCEDURE Preparing the substrate

The substrates must be cured, mechanically strong, free of loose particles, grease, oil, paint, wax and sufficiently dry.

Cement substrates must not be subject to shrinkage after tile installation. In mild weather, renders must have cured at least one week for each centimetre of thickness and cementitious screeds must have cured at least 28 days, unless they have been made with MAPEI special binders for screeds such as **Mapecem**, **Mapecem Pronto**, **Topcem** or **Topcem Pronto**.

Cool down with water surfaces that could become too hot due to exposure to sun light.

Gypsum substrates and anhydrite screeds must be perfectly dry, sufficiently hard and free of dust. It is

absolutely essential that they be treated with **Primer G** or **Mapeprim SP**. Areas subject to high humidity should be primed with **Primer S**.

Preparing the mix

Keraset must be mixed with clean water to obtain an homogenous paste free of lumps; after some minutes of resting, it must be re-mixed and the paste is then ready for use. The quantity of water to be used is 23-25 parts per 100 parts (by weight) equal to 4.5-5 litres of water for 20 kg of **Keraset**. The mix, produced in this way, is workable for at least 6 hours.

Applying the mix

Keraset is applied with a notched trowel onto the substrate. Choose a trowel that will give a coverage to the back of the tiles of at least 65-70% for walls or for internal light foot traffic. For heavy traffic and for external application, the coverage must be 100%.

To obtain good adhesion to the substrate the following system is recommended: first apply a thin coat of **Keraset** using the smooth side of the trowel and immediately afterwards apply the desired thickness of **Keraset** using the toothed side of the trowel.

In particular:

- for mosaics up to 5x5 cm the use of MAPEI No. 4 square toothed trowel is recommended (consumption 2 kg/m²);
- for normal ceramic coverings the use of MAPEI No. 5 notched trowel (consumption 2.5-3 kg/m²) is recommended;
- for substrates that have an irregular surface or tiles with a very rough back, the use of MAPEI No. 6 or notched toothed trowel (consumption 5 kg/m²) is recommended;
- in the case of external ceramic floor and wall tiles subject to frost or in difficult applications, the **Keraset** must also be applied on the backs of the tiles (double coating method).

Installing the tiles

It is not necessary to wet the tiles before installation; only in the case of very dusty backs is washing recommended, by quickly immersing them in clean water. The tiles must be installed in the normal way, placing them firmly to ensure good contact with the adhesive. The open time of **Keraset** in normal conditions of temperature and humidity, is 15/20 minutes; unfavourable environmental conditions (strong sun light, drying wind, high temperature) as well as a very absorbent substrate, could drastically reduce this time to a few minutes.

Therefore one must constantly check that the adhesive has not formed a superficial skin and is still "fresh"; where there is a formation of a superficial skin the adhesive must be re-applied with the notched trowel.

Wetting the adhesive after it has produced the skin is not recommended because the water forms an anti-adhesive film instead of dissolving it.

The "adjustability" of the tiles must be carried out within 45 minutes after installation. Tiles installed with **Keraset** must not be subject to running water or rain for at least

24 hours and must be protected from frost and strong sun light for at least 5-7 days after installation.

GROUTING AND SEALING

Wall joints between the ceramic tiles 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 TRAFFIC

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

READY FOR USE

Surface are ready for use after approx. 14 days.

Cleaning

Tools and hands can be cleaned with water, and surfaces of tiles with a damp cloth; water should only be used in moderate quantities and after a few hours.

CONSUMPTION

Bonding of ceramic mosaics

small size tiles in general
(trowel No. 4): approx. 2 kg/m²;

normal size tiles
(trowel No. 5): 2.5-3 kg/m²;

external floor and wall
coverings (trowel No. 6): approx. 5 kg/m²
and over.

PACKAGING

Keraset is supplied in off white and grey in 20 kg bags.

STORAGE

12 months when stored in a dry place. Manufactured in compliance with the regulations of the 2003/53/EC Directive.

SAFETY INSTRUCTION FOR THE PREPARATION AND INSTALLATION

Keraset 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 refer to 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 alone is fully responsible for any consequences deriving from the use of the product.

**All relevant references
of the product are available
upon request**

TECHNICAL DATA (typical values)

In compliance with:

- European EN 12004 such as C1
- American ANSI A 118.1 - 1999
- Canadian 71 GP 30 M type 2

PRODUCT IDENTITY

Consistency:	powder
Colour:	off white or grey
Bulk density (kg/m³):	1300
Dry solid content (%):	100
Storage:	12 months in a dry place in original packaging
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 and 50% R.H.

Mix ratio:	100 parts Keraset with 23-25 parts of water by weight
Consistency of mix:	paste
Density of mix (kg/m³):	1500
pH of mix:	over 12
Pot life:	6/8 hours
Application temperature:	from +5°C to +35°C
Open time (according to EN 1346):	approx. 15 minutes
Adjustability time:	approx. 45 minutes
Wall grouting:	after 3/6 hours depending on absorbency
Floor grouting:	after 24 hours
Set to light foot traffic:	24 hours
Ready for use:	14 days

FINAL PERFORMANCES

Adhesion according to EN 1348 (N/mm²): - initial adhesion (after 28 days): - adhesion after heating: - adhesion after water immersion: - adhesion after freeze-thaw cycles:	1.0 0.60 0.80 0.90
Resistance to damp:	excellent
Resistance to ageing:	excellent
Resistance to solvents and oils:	excellent
Resistance to acids and alkalis:	poor
Resistance to temperature:	from -30°C to +90°C
Deformability:	not deformable

Keraset



BUILDING THE FUTURE

MAPEI GROUP CERTIFIED MANAGEMENT SYSTEMS (Quality, Environment and Safety)

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

www.mapei.com