



Keracrete + Keracrete Powder



Two-component, high performance cementitious adhesive, with no vertical slip, for ceramic tiles, glass mosaics and stone material (thickness of adhesive up to 5 mm)



CLASSIFICATION IN COMPLIANCE WITH EN 12004

Keracrete is a latex to be mixed with **Keracrete Powder** or with sand and cement. By mixing **Keracrete** with **Keracrete Powder** an improved (2) slip resistant (T) cementitious adhesive (C) of class C2T is obtained.

WHERE TO USE

Keracrete mixed with Keracrete Powder or with sand and cement:

- Exterior and interior bonding of ceramic tiles of every sort on walls and floors; particularly suitable for glass mosaics, porcelain tiles and other non-absorbent tiles.
- Interior and exterior bonding of natural stone of every kind and not subject to stains.

Keracrete:

- To mix with cement mortars that have to be applied in thin layers.

Some application examples

Bonding of:

- Glass mosaic, klinker and single fired tiles, in swimming pools.
- Porcelain or glass mosaics, klinker and single fired tiles, quarry tiles on outside façades, balconies and terraces.
- Tiles of every type in places where a definite chemical resistance is required (dairies, breweries, wine-cellars, food and chemical industries).
- All types of ceramic tiles over underfloor heating installations.

- Marble and other natural stone on outside façades, balconies and terraces.

Creating thin concrete with cement mortars.

TECHNICAL CHARACTERISTICS

Keracrete is a synthetic-rubber latex to be mixed with **Keracrete Powder** (mixture of selected sand aggregates, special additives and synthetic resins) to obtain a high performance adhesive with excellent bonding properties onto all types of surfaces of common use in building, even the most difficult.

Keracrete can also be mixed with a mixture of Portland cement and fine sand aggregate. The adhesive hardens without undergoing noticeable shrinkage. Applied on vertical surfaces, it does not drip and even heavy tiles do not slip.

RECOMMENDATIONS

Never use **Keracrete** mixed with **Keracrete Powder**:

- on walls and floors subject to extreme flexing (chipboard and wood agglomerates, asbestos-cement etc.);
- on placed concrete or on precast elements that are not sufficiently cured and stable;
- on metal surfaces.

For installing glass mosaics on paper, especially light colours, use **Keracrete** mixed with **Keracrete Powder White**.

APPLICATION PROCEDURE **Preparing the substrates**

Substrates must be cured, mechanically strong, free of loose particles, grease, oils, paints, wax and must be sufficiently dry.

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An example of an installation of Granitello in underground - Linea 3 - Milan (Italy)



An example of an installation of mosaics with Keracrete + Keracrete Powder in a swimming pool



New harbor in Civitavecchia: outdoor installation of terracotta with Keracrete

Cementitious substrates must not be subject to shrinkage after the installation of tiles. During warm weather, renders must cure for at least one week per each centimeter of thickness. Cement screed must have an overall curing of at least 28 days, unless they are made with special MAPEI screed binders 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 of dust. It is absolutely essential to treat them with **Primer G** or **Mapeprim SP**. In areas subject to extreme damp, **Primer S** should be used to prime the substrate.

Preparing the mix

Keracrete Powder Grey, or **Keracrete Powder White** is supplied in 25-kg paper bags of a premeasured mixture of 325 grey or white and fine-graded silicious sand in proportions of 1:1.

The mix ratio will be one part of **Keracrete** and 4 parts of **Keracrete Powder Grey** or **White**.

Keracrete (latex) can be blended with a mixture of cement and clean fine sand aggregate in a ratio of 1 part by weight of **Keracrete**, 2 parts by weight of cement and 2 parts by weight of sand.

Mixing is performed by pouring the powder (sand and cement or **Keracrete Powder**) into **Keracrete** latex while stirring continuously, preferably with an electrical stirrer until a smooth paste is obtained. Leave to set for 2-3 minutes and briefly re-stir before use. Use the mixture within 90 minutes after its preparation.

To obtain longer trowelability and open time, the sand and cement or **Keracrete Powder** can be replaced partially with a cement adhesive such as **Kerabond** or **Adesilex P9**; this is advisable in summer, with highly absorbent surfaces or in strong sunlight (it should, however, be borne in mind that this procedure will increase curing time).

Spreading the mix

The mixture 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 the mixture onto the substrate using the straight edge of the trowel followed immediately with type and size of the tile, using the most suitable notched trowel.

- For mosaics up to 5x5 cm, the MAPEI square-notched trowel no. 4 is recommended.

- For ordinary ceramic tiles, the MAPEI V-notched trowel no. 5 is recommended.

- For floors, very irregular surfaces and tiles with high lugs and ribs, the MAPEI V-notched trowel no. 6 is recommended.
- With exterior ceramic tiled floors and walls subject to frost or demanding applications such as swimming pools, reservoirs, for tiles larger than 9 dm², floors to be polished in situ or subject to heavy traffic, the mixture must be applied to the backs of the the tiles (back buttering method).

Installing the tiles

It is not necessary to wet the tiles before laying; if however, the backs are very dusty, they should be dipped in clean water. The tiles are normally laid under a firm pressure to ensure good contact with the adhesive.

The open time of the adhesive obtained by mixing **Keracrete** with **Keracrete Powder** in normal temperature and humidity conditions is approximately 15 minutes; unfavourable weather conditions (strong sun, drying wind, high temperature) or a highly absorbent substrate may shorten this open time, even quite drastically, to just a few minutes.

Wetting the substrate before applying the adhesive helps to prolong open time. It is necessary to check that the adhesive has not formed a surface skin and is still fresh. If not, re-trowel the adhesive with a notched trowel.

It is inadvisable to wet the adhesive when it has formed a skin because, instead of dissolving the skin, this will form a non-adhesive film.

Adjustment of the tiles, if necessary, should be carried out within 30 minutes following laying.

Tiling laid with **Keracrete** mixed with **Keracrete Powder** must not be subject to washout or rain for at least 24 hours and must be protected from frost and strong sun for at least 5-7 days after laying.

N.B. Mosaic backing paper should be removed with a minimum quantity of water, care being taken not to move the mosaic pieces. With flooring, it is advisable, to do this when the **Keracrete** is in an advanced stage of setting. Take care with recent or damp substrates, which can considerably delay setting.

GROUTING AND SEALING

Wall joints can be grouted after 4-6 hours and floor joints can be grouted after 24 hours with the specific MAPEI cement 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 24 hours.

TECHNICAL DATA (typical values)

In compliance with:

- European EN 12004 as C2T
- American ANSI A 118.4-1999
- DIN 18156 - M
- Canadian 71 GP 30 M type 2

PRODUCT IDENTITY

| | Keracrete | Keracrete Powder |
|--|---|------------------|
| Type: | thick liquid | powder |
| Colour: | greenish white | white or grey |
| Apparent density (g/cm ³): | 1.01 | 1.30 |
| pH: | 10 | - |
| Dry solids content (%): | 21 | 100 |
| Brookfield viscosity (mPa·s): | 25000 | - |
| Storage: | Keracrete: 24 months in original unopened packing. Protect from frost. Keracrete Powder: 12 months in original unopened packing. | |
| Hazard classification according to EEC 88/379: | none | none |
| Customs class: | 4002 11 00 | 3824 50 90 |

APPLICATION DATA (at +23°C - 50% R.H.)

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|--------------------------------------|--|
| Mixing ratio: | one part by weight of Keracrete with 2 parts of cement and 2 parts of sand or one part of Keracrete and 4 parts of Keracrete Powder |
| Consistency of mix: | very pasty |
| Density of mix (g/cm ³): | 1.6 |
| pH of mix: | approx. 12 |
| Pot life: | 90 minutes |
| Application temperature range: | from +5°C to +35°C |
| Open time (according to EN 1346): | approx. 15 minutes |
| Adjustability time: | approx. 30 minutes |
| Wall grouting: | after 4-6 hours |
| Floor grouting: | after at least 24 hours |
| Set to light foot traffic: | 24 hours |
| Ready for use: | 14 days (21days for basins and swimming pools) |

FINAL PERFORMANCES

| | |
|---|------------------------------------|
| Keracrete + Keracrete Powder Tensile adhesion strength according to EN 1348 (N/mm ²): | |
| - initial (after 28 days): | 1.5 |
| - after heat ageing: | 1.3 |
| - after water immersion: | 1.0 |
| - after freeze-thaw cycles: | 1.5 |
| 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 |



An example of an installation of ceramic tile in a mall - Filinvest Festival Superhall - Manila (Philippines)



Laying glass mosaics



Installation of mosaics

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An example of an installation of glass mosaics with Keracrete + Keracrete Powder in a swimming pool. Park Hotel Gritti - Bardolino (Verona), Italy



An example of an installation glass mosaics in a turkish bath - Park Hotel Gritti - Bardolino (Verona), Italy

READY FOR USE

Surfaces are ready for use after 14 days. Basins and swimming pools can be filled after 21 days.

Cleaning

Tools may be cleaned with abundant water before the adhesive sets. After setting, cleaning becomes very difficult, but can be helped by solvents such as white spirit.

CONSUMPTION

- With trowel no. 4: approx. 2.5 kg/m², equal to 0.5 kg/m² of **Keracrete** and 2 kg/m² of **Keracrete Powder**.
- With trowel no. 5: approx. 3 kg/m², equal to 0.6 kg/m² of **Keracrete** and 2.4 kg/m² of **Keracrete Powder**.
- With trowel no. 6: approx. 5 kg/m², equal to 1 kg/m² of **Keracrete** and 4 kg/m² of **Keracrete Powder**.

PACKAGING

Keracrete
25-kg drums
10-kg drums
5-kg drums

Keracrete Powder Grey
Keracrete Powder White
25-kg paper bags.

STORAGE

Keracrete: 24 months. Protect from frost.
Keracrete Powder: 12 months.

SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION

Keracrete Powder contains cement that when in contact with sweat or any other body fluids produces an irritant alkaline reaction. Wear 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 alone, is fully responsible for any consequences deriving from the use of the product.

All relevant references of the product are available upon request



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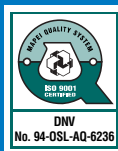
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