



# KLE400

## CEMENTITIOUS ADHESIVE FOR ANY KIND OF TILE & STONE

Klebend's KLE400 is an anti-skid, high adhesion quartz adhesive.

It can be applied upto 10 mm bed thickness. High dispersion co-polymers hydraulic binders composed of only cement clinker in KLE400 provides rheological mixture for a prolonged stability. It serves purpose of high resistance laying



### Green Building Rating

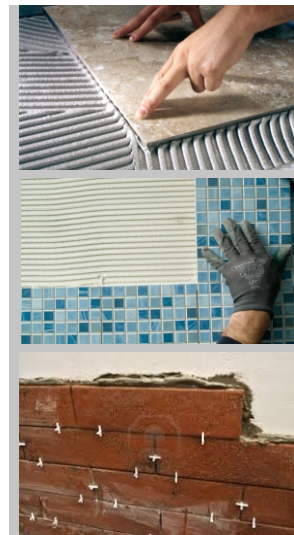


### Areas of Application

- Fixing absorbent floor and wall tiles out doors and in doors.
- Fixing on heating floors.
- Fixing poorly absorbent materials or non-absorbent materials such as single-fired tiles, refine porcelain stoneware and vitrified tiles.
- Suitable for use when high performances are required, such as tile fixing in industrial environment or fixing on top of old ceramic tiles or natural stone indoors, in swimmingpools or on facades.
- The tiles can be made of cotto, double fired, single fired ceramic.

### Features & Benefits :

- Floors and walls, for internal and external use
- Ideal for fixing Aquastop 100 tape in Aquaexpert System
- Open and adjustability time  $\geq 30$  min.
- Suitable for facades
- Suitable for homogeneous tiles, ceramics, large formats, low thickness slabs and stable natural stone
- Thicknesses up to 10 mm



### Preparation of substrates

1. In general, cement-based substrates must be free from dust, oil and grease, dry and free from any rising damp, with no loose, flaky or imperfectly anchored parts such as residual traces of cement, lime and paint, which must be totally removed.
2. The substrate must be stable and without cracks, must have already completed curing hygrometric shrinkage and must present suitable mechanical resistance levels. Undulated areas must be corrected with suitable smoothing and finishing products.



### Substrates with weak surface consistency :

Screeds and plasters which present a weak crystalline structure in the initial mm of thickness and which can be easily added. Must be consolidated by means of Primer, the professional, water-base depth consolidant, to be applied with one or more coatings and according to the instructions, until a surface has been obtained which is still absorbent but compact.

### High-absorption substrates :

On screeds and plasters which are compact but highly absorbent, in warm climates and with direct ventilation, it is advisable to Apply in advance Primer, a professional, concentrated, water base, surface insulation product, with one or more coatings and according to the instructions, to reduce water absorption and to improve spreadability of the adhesive.

### Preparation of adhesive paste :

1. Prepare KLE400 in a clean container, first of all pouring in a quantity of water equal to approximately . of that which will be required.
2. Gradually add KLE400 to the water in the container, mixing the paste from the bottom upwards with a low-rev ( 400 RPM /min.) helicoidal agitator. Then add more water until the desired consistency is obtained, the mixture must be homogeneous and without any lumps. For best results and to mix larger quantities of adhesive, a stirring device with vertical blades and slow rotation is recommended.
3. Specific polymers with high-dispersion properties ensure that KLE400 is immediately ready for use. The amount of water to be added, indicated on the packaging. It is possible to obtain mixtures with a more or less thixotropic consistency, depending on the type of application.

### IMPORTANT :

**Adding extra water does not improve the workability of the product, may causeshrinkage in the plastic phase of drying and result in less effective final performance with a reduction in compressive strength and adhesion to thesubstrate.**

### Application

- KLE400 should be applied with a suitable toothed spreader, to be chosen according to the size and characteristics of the rear surface of the tiles. It is best to use the smooth part of the trowel to spread a fine initial layer, pressing down hard so as to obtain maximum adhesion to the substrate and to regulate water absorption, after which the thickness can be adjusted as required by tilting the spreader at an angle.
- Spread the adhesive over a surface area which will allow for laying of the surface materials within the indicated open time and check for suitability of the adhesive at regular intervals, the open time may vary considerably during the same operation, depending on various factors such as exposure to sunlight, air currents, absorbency of the substrate, temperature and relative humidity of the atmosphere.
- Press down each tile to allow for complete, uniform contact with the adhesive. In the case of laying in environments subject to heavy traffic or in outdoor locations, the double-spread technique must be used, to ensure 100% coverage of the rear of the tiles.
- In general, ceramic tiles do not require preliminary treatment, however these materials should properly anchored to the substrate or which may modify the absorption characteristics of the tiles.

### Special applications :

Replacement of mixing water with SBR, the professional elastomer latex, provides the adhesive with greater capacity of transversal deformation and greater resistance to water and tensile stress without modifying the open time and adjustment interval.

- laying on deformable flooring and walls in plasterboard,
- laying on heat-radiant slabs,
- laying of large-format paving slabs in outdoor applications and in permanently humid environments, direct bonding on substrates in smoothed concrete with reduced water absorption.



Epoxy | Adhesive | Water Proofing

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## Precautions & Limitations :

Do not use on substrates with a gypsum and anhydrite base without use of Primer the professional, concentrated, water-base, surface insulation product

1. Heat-radiant slabs,
  2. High-flexibility substrates;
  3. Marble floor tiles and natural stone,
  4. Metal and wood;
  5. On old ceramic flooring,
  6. On plasterboard;
  7. On plastic or resilient materials,
  8. On substrates which are wet, subject to moisture rising or in continuous contact with water.
- Do not use the adhesive to correct substrate irregularities greater than 10 mm

## Technical Information

Colours	Grey & White
Mixing Ration	5.6 to 6.4 Ltrs/ Bag 20 Kg KLE400
Pot Life	≥ 4 Hr
Open Time	≥ 30 Minutes
Adjustability	≥ 45 Minutes
Bed Thickness	3mm To 10mm
Grouting	8 Hour On Wall / 24 Hour on floor

## Final Characteristics

Shear Adhesion After 28 Days.	≥ 1 Mpa	ANSI A-118.1
Tensile Adhesion On Concrete		
After 28 Days.	≥ 1 MPa	EN 1348
Durability Test:		
Adhesion After Heat Agering.	≥ 1 MPa.	EN 1348
Adhesion After Water Immersion	≥ 1 MPa	EN 1348
Adhesion After Freeze Thaw Cycles	≥ 1 MPa	EN 1348
Working Temperature From		

## Coverage :

Approximately 55 to 60 sqft for 20 kgs bag with 6mm x 6mm square notch trowel for a bed of 3 mm

## Packing :

20 kg bag.

## Shelf Life & Storage :

12 Months with original packing in dry storage condition. Health & Saftey Precautions : Use Gloves. Non Toxic.

**DISCLAIMER** The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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