

# Kerapoxy Adhesive



**Two-component,  
epoxy adhesive with  
no vertical slip  
for ceramic tiles  
and stone material**



#### **CLASSIFICATION ACCORDING TO EN 12004**

**Kerapoxy Adhesive** is an R2T classified reactive (R), improved (2) adhesive with no vertical slip (T).

Conformity of **Kerapoxy Adhesive** is declared in **ITT certificate n° 25070399/Gi (TUM)** issued by the *Technische Universität München laboratory (Germany)* and in **ITT certificates n° 2008-B-2748/4.1, 2008-B-2748/5.1 and 2008-B-2748/6.1** issued by the *MPA Dresden Institute (Germany)*.

#### **WHERE TO USE**

Internal and external bonding of ceramic, porcelain and stone to floors and walls, on all substrates normally used in the building industry.

#### **Some application examples**

- Bonding of all types and forms of ceramic tiles.
- Rigid bonding of bullnose and special ceramic tile shapes.
- Bonding tiles in fibreglass swimming pools.
- Bonding marble doorsteps and windowsills.

#### **TECHNICAL CHARACTERISTICS**

**Kerapoxy Adhesive** is a two-component, epoxy resin-based, high strength mortar with silica sand and special admixtures, according to a formula developed in MAPEI's own research laboratories. When the two components are mixed together, a thixotropic mix is obtained which can be easily applied,

even on vertical surfaces, at a thickness of up to 1 cm in one single coat.

**Kerapoxy Adhesive** has the following characteristics:

- excellent durability and resistance to ageing;
- perfect bonding on all types of substrate commonly used in the building industry;
- hardens by chemical reaction with no shrinkage, becoming extremely strong.

#### **RECOMMENDATIONS**

- Do not add water or solvents to **Kerapoxy Adhesive** to increase workability.
- Use the product at temperatures between +10°C and +30°C.
- The packages are pre-dosed and, therefore, it is not possible to make mixing ratio errors. Do not estimate the quantities when mixing the two components: hardening will be compromised if the catalysing ratio is wrong.
- If residues of the product remain attached to the tiles, use water for cleaning while the residue is still fresh. Use **Pulicol 2000** if the product is hard, or remove mechanically.
- **Kerapoxy Adhesive** must not be used for sealing flexible joints or those which are subject to movement (use **Mapesil AC** or **Mapeflex PU21**).

TECHNICAL DATA (typical values)		
PRODUCT IDENTITY		
	component A	component B
Consistency:	thick paste	thick paste
Colour:	grey and white	beige
Density (g/cm <sup>3</sup> ):	1.8	1.4
Dry solids content (%):	100	100
Brookfield viscosity (mPa-s):	800,000 (# F - 5 rpm)	550,000 (# F - 5 rpm)
APPLICATION DATA (at +23°C and 50% R.H.)		
Mixing ratio:	component A : component B = 80 : 20	
Brookfield viscosity of mix (mPa-s):	1,000,000 (# F - 2.5 rpm)	
Density of the mix (kg/m <sup>3</sup> ):	1,490	
Pot life of mix:	45 minutes	
Application temperature range:	from +10°C to +30°C	
Open time (according to EN 1346):	60 minutes	
Adjustment time:	130 minutes	
Set to light foot traffic:	after 10-12 hours	
Ready for use:	after 2 days	
FINAL PERFORMANCE		
Bond (shear strength) according to EN 12003 (N/mm <sup>2</sup> ):		
- initial bond:	7	
- bonding after immersion in water:	4	
- bonding after thermal shock:	4	
Resistance to humidity:	excellent	
Resistance to ageing:	excellent	
Resistance to solvents and oil:	good	
Resistance to acids and alkalis:	good	
In service temperature range:	from -20°C to +100°C	

- **Kerapoxy Adhesive** must not be used on wet surfaces.
- **Kerapoxy Adhesive** must not be used on dirty or crumbly surfaces.

## APPLICATION PROCEDURE

### Preparation of the substrate

The substrate must be well cured, mechanically strong, dry and free from flaking parts, grease, oil, paint, wax, etc.

Cementitious substrates must not shrink after laying the tiles. Therefore, during good weather, the curing time must be at least one week per centimetre of thickness, unless screeds are made using a special MAPEI binder such as **Mapecem**, **Topcem** or with **Mapecem Pronto** or **Topcem Pronto**. If these guidelines are not followed, the bond of **Kerapoxy Adhesive** to the substrate could be compromised.

On ferrous surfaces, rust must be removed by sand-blasting.

On gypsum, plaster-board and anhydrite surfaces, we recommend consolidating the surface by applying a coat of **Primer EP** or **Eco Prim T**.

### Preparation of the mix

The two components which make up **Kerapoxy Adhesive** are supplied in pre-dosed drums:

- part A: grey and white colour, 80 parts by weight;
- part B: beige colour, 20 parts by weight.

The ratio between the two components is compulsory, and any modification may cause the product to harden incorrectly.

Pour the catalyst (part B) into the container with part A and mix well until a smooth paste is obtained. We recommend using a low-speed electric mixer to guarantee perfect bonding, and to avoid overheating of the mix which would reduce working times. Use the mix within 45 minutes of its preparation.

### Application

Spread the adhesive onto the substrate using a suitable notched trowel. If the adhesive is used for bonding special tile shapes such as torelli, also fill the gaps on the back of the piece with the **Kerapoxy Adhesive** mix before laying. Press the pieces to be bonded by pressing them together to guarantee good buttering. Once set, the bond will be very tough.

The surrounding temperature effects the hardening time of the product. At +23°C it remains workable for approximately 45 minutes, and this time reduces as the temperature increases.

### SET TO LIGHT FOOT TRAFFIC

Floors may be foot trafficked after 10-12 hours at +23°C.

### READY FOR USE

The surfaces may be put into service after 2 days.

## Cleaning

Tools and containers may be cleaned while the product is still fresh using plenty of water. Once **Kerapoxy Adhesive** has set, they may only be cleaned mechanically or with **Pulicol 2000**.

## CONSUMPTION

Consumption is 1.5 kg/m<sup>2</sup> per millimetre of thickness.

## PACKAGING

10 kg kits:  
component A: 8 kg drums;  
component B: 2 kg cans.

## STORAGE

**Kerapoxy Adhesive** remains stable for at least 24 months if stored in its original, sealed packaging.

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Kerapoxy Adhesive** component A is irritant for the skin and the eyes, both components A and B may cause sensitisation in those subjects sensitive to such substances.

**Kerapoxy Adhesive** component B is corrosive and may cause burns.

The product contains low molecular weight epoxy resins that may cause sensitisation if cross-contamination occurs with other epoxy compounds. When applying the product, we recommend the use of protective gloves and goggles and to take the usual precautions for handling chemical products. If the product comes into contact with the eyes or skin, wash immediately with plenty of clean water and seek medical attention.

**Kerapoxy Adhesive** component A is also hazardous for aquatic life. Do not dispose of this product in the environment.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

PRODUCT ONLY FOR PROFESSIONAL USE.

## WARNING

*Although the technical details and recommendations contained in this product data sheet 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 application; 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.*

**Please refer to the current version of the Technical Data Sheet, available from our website [www.mapei.com](http://www.mapei.com)**

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## 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.com](http://www.mapei.com).*

**ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.**

**All relevant references for the product are available upon request and from [www.mapei.com](http://www.mapei.com)**

