KEMAPOX GRUND 2000

Basic epoxy primer

- Good penetration into the substrate
- Universal application
- Short open time and quick ready for foot traffic
- Easy to use
- For outdoor and indoor use

PRODUCT DESCRIPTION	**2-component middle viscous epoxy primer, bond old-new and resin for epoxy mortar/epoxy levelling preparation. In accordance with EN 13813 SR-B2,0-AR0,5-IR20 thin layer coating/ thin layer screed on base of epoxy resin for indoor and outdoor use.**
FIELD OF USE	For priming of commonly cement based surfaces, for filling of capillaries and pores, for reinforcement and thin-layer levelling. It viscosity is suitable for filling with quartz sand and for epoxy thin-levelling, screeds and mortars. For outdoor and indoor use.

1. Primer on concrete, cement screeds, epoxy leveling and mortars.
2. Primer in the installation of all Kema epoxy and polyurethane floors.
3. For reinforcement and as an anti-dust coating for cement based substrates.
4. Suitable for use on normal to strongly absorbent cement substrates.
5. Suitable for filling with quartz sand of different grain sizes, to implement thin epoxy leveling and epoxy mortar.
6. Suitable for filling with quartz sand EPOXY SAND ESC or EPOXY SAND OC, to prepare epoxy mixture for quartz colour system.

PRODUCT PROPERTIES

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PRODUCT DATA

BASIC INFORMATION	**Appearance**	Component A: colourless fluid; Component B: colourless fluid
	Packing	28 kg (20 kg of component A and 8 kg of component B) 7 kg (5 kg of component A and 2 kg of component B)
	Storage and expiration date	At an appropriate storage (dry, in the temperature range between +5 ° C to + 30 ° C in original and undamaged packaging), 12 months from date of manufacture. Protect the product from freezing, direct sun and heat sources.
TECHNICAL DATA	**Chemical composition**	Modified epoxy resin and modified cycloaliphatic hardener
	Density of component A (22°C)	1,14 g/cm^3
	Density of component B (22°C)	1,01 g/cm^3
	Density of mixture (22°C)	1,09 g/cm^3
	Viscosity of component A (25°C)	685 s (+22°C, RVZ 65%) Ford cup No. 4
	Viscosity of component B (25°C)	87 s (+22°C, RVZ 65%) Ford cup No. 4
	Viscosity of mixture (25°C)	345 s (+22°C, RVZ 65%) Ford cup No. 4
	Dry matter content	~100 %
	Bond strength	> 5 N/mm^2
	Open time (200 g)	min. 20 min
	Shore D after 7 days	75

THERMAL RESISTANCE

Exposure	Dry heat
long- term	+50°C
short- term, up to 7 days:	+80°C
short- term, up to 12 hours	+100°C

Exposure should not be simultaneous chemical and mechanical.

INSTRUCTIONS FOR USE

IMPLEMENTATION

1. Primer prior to installation of epoxy floor, substrate reinforcement, anti- dust coat:

Normally absorbent substrate	1 layer KEMAPOX GRUND 2000
Strongly absorbent substrate	2 layers KEMAPOX GRUND 2000

2. Epoxy leveling compound (leveling up to 2 mm):

Normally absorbent substrate	1 layer KEMAPOX GRUND 2000 and 1 layer KEMAPOX GRUND 2000 + EPOXY SAND ES 0,1 - 0,3
Strongly absorbent substrate	2 layers KEMAPOX GRUND 2000 and 1 layer KEMAPOX GRUND 2000 + EPOXY SAND ES 0,1 - 0,3

3. Epoxy mortar (15 to 20 mm)

Normally absorbent substrate:	1 layer KEMAPOX GRUND 2000 as bonding layer and 1 layer KEMAPOX GRUND 2000 + EPOXY SAND ES 80
Strongly absorbent substrate	1 layer KEMAPOX GRUND 2000 and 1 layer KEMAPOX GRUND 2000 as bonding layer and 1 layer KEMAGRUND 2000 + EPOXY SAND ES 80

CONSUMPTION

1. Primer prior to installation of epoxy floor, substrate reinforcement, anti- dust protection coating, bonding layer: 0,3 - 0,5 kg/m2 for one layer, depending on the absorbency of the substrate.

2. Epoxy leveling compound (leveling up to 2 mm): 1,4 to 1,6 kg/m2 for 1 mm thickness (mixing ratio resin: sand = 1:1)

3. Epoxy mortar (15 to 20 mm): 2,2 kg/m2 for 1 mm thickness (mixing ratio resin: sand = 1:7)

BASE

The substrate must be clean, dry, stable, sound and free from cement crust, dust, oil, grease, loose particles and similar impurities. Compressive strength of the substrate must be at least 25 MPa, the average bond strength of at least 1.5 MPa (the smallest measured value shall not be less than 1.0 MPa). Moisture content in substrate must be not more than 4%, measured by the CM method (concrete at least 35 MB).

BASE PREPARATION

Prepare by appropriate mechanical methods such as grinding, milling, ball or sand blasting or burning to remove the top layer of the surface and to achieve an open texture of the surface. Unbound and loose particles must be removed, it is also necessary to fully repair all defects such as holes, dents or cracks, and irregularities and voids. Defects, cracks and holes must be repaired with appropriate KEMA products (eg. KEMAPOX FILL, KEMAPOX GRUND, ...).

Before application of the resin completely remove dust and loose particles from the substrate, using a broom or vacuum cleaner.

MIX RATIO	A:B=100:40 (ratio of components A and B); Dry quartz sand is added according the purpose of use
MIX TIME	Epoxy resin is usually thicker than the hardener, so that they can not be easily stirred. Pour all of part B into all of part A. With a mixer thoroughly stir the mixture into a homogeneous compound. It is important that the compound is thoroughly stirred that the hardener is evenly distributed in the compound. It is necessary to mix on the sides and from the bottom upwards, so that the hardener evenly distributes in the vertical direction, until the compound is completely homogeneous and of uniform colour. Mixing time should be 2-3 minutes. Recommended temperature when mixing must be greater than 15 ° C. If we are not sure that the mixture is mixed homogeneously, the mixed components must be poured over in a new, clean container and again well stirred. The second mixing should not take too long to avoid the entry of too much air in the compound. If you are preparing a small quantity of epoxy coating, use a third clean container. Pour in a third container the exact quantity of component A and then corresponding amount of component B. The mixing procedure should be the same as described above. Use weighing scales with an accuracy of + / - 0,1 kg. If you add a third component of dry quartz sand, first mix the two components. Then gradually add the sand in steps of 15%. The total quantity of added sand depends on the purpose of installation and must be determined in each case. WARNING: Installation time (open time) is very dependent upon the amount by stirring at the time, the temperature and the intensity of mixing and begins when you add the component B to A. We recommend to prepare amount of a mixture you can apply in 10 minutes, and do not install at temperatures higher than + 30 ° C, and do not mix too intense.
MIX TOOL	Component B must be added to component A and stirred thoroughly, preferably with a spiral mixing spindle attached to a drill with max. 300-400 rpm .
INSTALLATION	Before application, check the moisture, relative humidity and dew point. If all conditions are met the installation can begin. 1. Primer prior to installation of epoxy floor, substrate reinforcement, anti- dust protection coating, bonding layer: Pour mixed material (follow instructions) over the surface, use spatula from hard gum, roller or trowel and distribute evenly. After about 5 minutes evenly distribute it using a paint roller in cross pulls. In the case of highly absorbent substrate apply the second coat after approx. 10-12 hours (depending on temperature). 2. Epoxy levelling compound (levelling up to 2 mm): Prepare your material according to instructions and pour over the surface. Use a spatula from hard gum or masonry trowel to distribute resin to the desired thickness. Depending on project the fresh resin can also be strewn with dry sand. However, the broadcast with epoxy sand is recommended, when the next layer would not beapplied in the next three days. 3. Epoxy mortar (15 to 20 mm): Epoxy mortar shall be prepared according to instructions and installed on the fresh bonding layer made of KEMAPOX GRUND 2000. Using a spatula from hard gum or masonry trowel to distribute the mixture to the desired thickness, you can also use a levelling board.
TOOL	KEMAPOX Grund 2000 is applied to the prepared surface with a paint roller, a metal trowel or notched trowel.
CLEANING OF TOOL	Clean tools immediately after use with diluent KEMAPOX CLEANER. Hardened material can be removed from the tool only mechanically.

OPEN TIME 20 minutes (at +22°C, 200 g)

COAGULATION Processing time

Temperature	Ready for foot traffic	Lighter loading	Full loading
+10°C	approx. 24 hours	approx. 5 days	approx. 10 days
+20°C	approx. 12 hours	approx. 3 days	approx. 7 days
+30°C	approx. 6 hours	approx. 2 days	approx. 5 days

Waiting time between coats:

Substrate temperature	Minimum	Maximum
+10°C	24 - 36 hours	4 - 6 days
+20°C	12 - 24 hours	2 - 4 days
+30°C	6 - 12 hours	1 - 2 days

Times are approximate and depend on the ambient conditions, particularly on temperature and relative humidity.

LIMITATIONS

BASE TEMPERATURE	+10°C min. / +30°C max.
AIR TEMPERATURE	+10°C min. / +30°C max.
MATERIAL TEMPERATURE	+15°C min.
WARNINGS	• Protect freshly installed material from freezing, rain and other weather conditions. The material should not be used at temperatures below +8 ° C. • It is recommended that the material is used at a maximum humidity of 80%. • The maximum permissible moisture is 4% for concretes of label C30/37 (determined by CM-apparatus or laboratory drying). DO not apply epoxy resin if capillary moisture is presents. • It is recommended that the material is stored in a dry place, protected from direct sunlight and frost. • Protect freshly installed epoxy resin from moisture, condensation and water for at least 24 hours from installation. • In outdoor use, install the resin when the temperature decreases. In the case of rising temperature, holes on the surface may occur. • If heating is required do not use gas, oil, paraffin or other fossil fuels for heating. It is recommended to use an electrical method of heating, because organic fuels release CO2 and H2O, which may adversely affect the surface appearance. • Dew Point:The substrate and unhardened resin must be at least 3°C below the dew point to reduce the risk of condensation or blooming on the floor finish. • The epoxy resin is composed of two components, so take into consideration the given mixing ratio. • Uninterrupted access to closed site, 3 phase current, strength of at least 32 A, lighting of surfaces, where the floor will be implemented, protection against rain and direct sunlight.
	Recommendation: Remains of the unhardened/unset material have to be removed in accordance with the legislation.
	Data source: All technical data in this technical sheet was obtained by laboratory research. Actual data may differ due to different working conditions on which we have no influence.
	Local restrictions: Due to specific local regulations the installed product can differ from country to country. For exact instructions for use, demand a country specific technical data sheet.

PROOFS

NORMS/ STANDARDS	The product complies the harmonized European standard EN 13813.

SAFETY DATA

At work we have to use gloves and protective skin cream. Hardener should not come into contact with skin and especially not in eyes. Stains on the skin are washed with soap and water, but if accidentally splashed into the eyes, they should immediately be washed with plenty of water and seek medical advice.
Further information on storage, handling and use of compound are contained in this safety data sheet which contains safety, toxicological and ecological data, we must also pay attention to warnings on the original packaging.

LEGAL BASE

Information and recommendations relating application and end use of Kema products, are given in good faith based on our temporary knowledge and experience of the products, if they are properly stored, properly handled and used under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that from this information or any written recommendations, or from any other advice no tradability or suitability for a particular purpose, nor any liability arising from any legal relationship can be guaranteed..
Proprietary rights of third must be respected. All orders fall under current sales and supply conditions. Customers should always refer to the latest technical data sheet for the concerned product, copies of the technical data sheet are available on request.