



KEMAPOX FUGA/DRAIN

Epoxy resin for making grouting mortar for paved surfaces and building a drainage layer.

- ▶ Rapid development of compressive and flexural strenghts.
- ▶ For outdoor and infloor use
- ▶ Ready for foot traffic after 12-24 h and after 3 days for full loads
- ▶ Universal and easy usage



PRODUCT DESCRIPTION	Two component epoxy resin - binder in combination with selected quartz sand for making grouting mortar for paved surfaces, making a drainage layer and epoxy restoration mortar for small repairs.
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FIELD OF USE	Suitable for grouting granit blocks, paving stones, granite cubes and plates made of natural, artificial stone or concrete, where the joints are at least 10 mm width. The product in combination with the appropriate quartz sand, can be used as a drainage layer on outdoor surfaces. Because of its composition, the surface is fast ready for foot and vehicle traffic. For outdoor and indoor use, for easy and heavy loads. The mixing ratio gives the product its corresponding properties, according to its intended use.
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| PRODUCT PROPERTIES | <ul style="list-style-type: none"> • Rapid development of compressive and flexural strenghts. • For outdoor and infloor use • Ready for foot traffic after 12-24 h and after 3 days for full loads • Universal and easy usage |
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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)

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 hardener

Density of mixture (22°C) 1,09 g/cm³

Viscosity of mixture (22°C) 1300-1700 mPas (average 1500 mPas)

Mix ratio (A:B) 100:40

INSTRUCTIONS FOR USE

IMPLEMENTATION

BINDER	FRACTION	MIX RATIO	FLEXURAL STRENGHT	COMPRESSIVE STRENGHT
KEMAPOX FUGA / DRAIN	B80S (0,1-0,8mm)	1:6	17,0 MPa	51,0 MPa
		1:8	13,0 MPa	32,0 MPa
		1:10	11,0 MPa	27,0 MPa
		1:20	6,0 MPa	13,0 MPa

BINDER	FRACTION	MIX RATIO	FLEXURAL STRENGHT	COMPRESSIVE STRENGHT
KEMAPOX FUGA / DRAIN	B150S (0,5-1,5mm)	1:6	18,0 MPa	47,0 MPa
		1:8	11,0 MPa	30,0 MPa
		1:10	11,0 MPa	24,0 MPa
		1:20	6,0 MPa	16,0 MPa

BINDER	FRACTION	MIX RATIO	FLEXURAL STRENGHT	COMPRESSIVE STRENGHT
KEMAPOX FUGA / DRAIN	B200S (1,0-2,0 mm)	1:6	15,0 MPa	41,0 MPa
		1:8	12,0 MPa	29,0 MPa
		1:10	8,0 MPa	23,0 MPa
		1:20	8,0 MPa	17,0 MPa

1. EPOXY GROUTING JOINT FOR GRANIT CUBES, PLATES (stone) AND EPOXY RESTORATION MORTAR:

BINDER	FRACTION	MIX RATIO	FLEXURAL STRENGHT	COMPRESSIVE STRENGHT
KEMAPOX FUGA / DRAIN	N560S (3,15-5,6mm)	1:30	5,0 MPa	10,0 MPa
		1:40	3,0 MPa	7,0 MPa

BINDER	FRACTION	MIX RATIO	FLEXURAL STRENGHT	COMPRESSIVE STRENGHT
KEMAPOX FUGA / DRAIN	N800S (5,6-8,0mm)	1:30	4,0 MPa	10,0 MPa
		1:40	3,0 MPa	7,0 MPa

2. DRAINAGE MORTAR

CONSUMPTION 1. EPOXY GROUTING JOINT FOR GRANIT CUBES, PLATES (stone) AND EPOXY RESTORATION MORTAR:

Depending on the width, length and depth of the paving stones (stone plates, etc...), and the chosen mix ratio, regarding on the strengths that are required.

2. DRAINAGE MORTAR:

The consumption of the quartz sand N560S (3,15-5,6 mm) and N800S (5,6-8,0 mm) fraction is approx.: 16 kg/m² for a layer thickness of 1 cm.

The thickness of drainage mortar depends from the quality of the surface and desired final strengths.

BASE 1. EPOXY GROUTING JOINT FOR GRANIT CUBES, PLATES (stone) AND EPOXY RESTORATION MORTAR:

The surface must be prepared and hardened in relation to the expected loads, which means that there should be no settlement (deformation of substrate) or loosening of the laid lining (paving stones, etc...). The preparation of lower layer - gravel and the placenta is essential before the laying of the final lining. In case, that the drainage layer is installed on the surface, which must be water-proof, it is essential that under the drainage layer a hydro-insulation is installed. (the choice which hydro-insulation to choose depends from the demands in the project)

BASE PREPARATION 1. EPOXY GROUTING JOINT FOR GRANIT CUBES, PLATES (stone) AND EPOXY RESTORATION MORTAR:

The surfaces that will not be grouted have to be properly protected. The depth of the joints has to be at least 30 mm (FOR HEAVY LOADS AT LEAST 2/3 OF THE THICKNESS OF THE FINAL LAYER). The width of the joints should be min. 10 mm. All the remains of cement mortar between granite cubes has to be deepened and vacuumed prior to the grouting. There should be no material residues in the joints, as it affects the final depth and the quality of the joint itself. BEFORE APPLICATION OF GROUTING COMPOUND, THE SURFACE HAS TO BE CLEANED WITH CLEAN WATER, AND DRIED. ANY EXCESS WATER HAS TO BE REMOVED (WATER MUST NOT STAND ON THE SURFACE).

2. DRAINAGE MORTAR:

Prior to the application, the substrate shall be prepared according to the project's requirements. Water can not stand on the surface.

In both cases, the substrate must be prepared according with the existing construction practice.

MIX RATIO A:B=100:40 (mix ratio A and B component). Dry quartz sand is added regarding the purpose and the required strengths.

MIX TIME Before application it is recommended to check if the quartz sand is dry, because otherwise the binder loses strength. For mixing epoxy mixture we use construction blender (for large surfaces) and a big, clean bucket (for small surfaces or restoration). In a construction blender put the appropriate amount of sand. It is recommended that for making a drainage mortar we use 2 bags of sand (2X25 kg) and one piece of epoxy binder KEMAPOX FUGA/DRAIN; for preparation of grouting mortar use one bag of sand (1X25 kg) and one piece of epoxy binder KEMAPOX FUGA/DRAIN.

Combine time of mixing of all three components must be at least 6 min. For mixing smaller quantities use a bigger, clean bucket in which sand has to be put first. Before that, KEMAPOX FUGA/DRAIN has to be weighed - regarding the desired material we want to use.

EXAMPLE: For making a drainage mortar put in a bucket 1 bag of sand (1X25 kg) and add same time 0,45 kg component A and 0,18 kg of component B. Mixing time must be at least 6 minutes. We recommend, that after 3 minutes of mixing, take another bucket and mix the material for another 3 minutes. For grouting mortar or for small repairs put in a bucket half bag of sand (12,5 kg) and same time add 0,45 kg of component A and 0,18 kg of component B. Mixing time should be at least 6 minutes.

MIX TOOL For mixing use construction blender (for bigger quantities) or clean, big bucket (for smaller quantities). When mixing in a bucket use a drilling machine with spiral mixer.

INSTALLATION 1. EPOXY GROUTING COMPOUND FOR PAVING STONES AND STONE PLATES:

Mixed compound pour on 2-3 places on previously well - cleaned surface. With the help of a steel shovel put the mixture roughly over the surface and then use a broom that has a rubber-mounted brush instead of brushes - we spread the compound over the surface and fill the joints. After approx.: 2 min. (at a temperature of approx. 20 °C) with a coarse broom carefully wrap the filled surface and remove the excess grout. Then use a soft broom and carefully clean the entire surface to keep it almost completely without a trace. Cleaning should be done diagonally at the joint itself. Excess material must not be used again. After the treatment a very thin layer of hardening adhesive remains on the surface. It emphasizes the color of the finish lining and also protects the lining from dirt, but due to time and wear within a few months disappears. IN CASE, THAT THE FINAL LOOK HAS A VERY SIGNIFICANT MEANING, IT IS RECOMMENDED TO PERFORM A SMALL TEST FIELD BEFORE APPLICATION. When used for fixing holes, if necessary before application of epoxy mixture, the surface has to be mechanically trimmed or grinded, to ensure a good bonding. The surface has to have a min. 1,5 MPa of bonding strength and has to be without dust and pieces of the material. The surface has to be also without oil, grease and other impurities.

2. DRAINAGE MORTAR:

Pour the mixture on the desired surface and spread it, so that the thickness of the material is evenly aligned. To achieve a steady level across the entire surface, you can use a longer water scale or a straight batten. Then use a metal trowel or a light vibrating plate and align the mixture and smooth it up. Ensure that the mixture is firmly compressed. In order for the finished product to have a long lifetime as possible, the material should be firmly pressed or settled.

In both cases protect the fresh installed material from rain for the next 24 hours. The protection must not be placed directly on the installed compound, but it is necessary to provide air circulation.

TOOL According to its purpose, apply the compound to the prepared substrate with a hard rubber blade, batten, water scale or a steel trowel.

CLEANING OF TOOL Immediately after use, clean the tools with SOLVENT for epoxy resins. Hardened material can be removed only mechanically.

OPEN TIME 15 min. (at 22°C)

LIMITATIONS

BASE TEMPERATURE +5°C min./ +30°C max.

AIR TEMPERATURE +5°C min./ +30°C max.

MATERIAL TEMPERATURE +5°C min./ +30°C max.

- WARNINGS**
- Protect freshly installed material from freezing, rain and other weather conditions. The material should not be used at temperatures below +5 ° C.
 - It is recommended that the material is used at a maximum humidity of 80%.
 - 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.
 - The epoxy resin is composed of two components, so take into consideration the given mixing ratio.
 - If we want the epoxy joint to be water-permeable, use the bond ratio - binder - sand at least 1: 8 (recommended 1:20) or more. A completely closed joint or surface is obtained by using the bond ratio - binder - sand 1: 6 or less. The ratio between 1: 6 and 1: 8 yields a surface that can be permeable to water or not, depending on how firm the mixture is compressed.

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.