



KEMAPOX C 6100

Chemical-resistant thin-layer epoxy coat

- ▶ Excellent chemical resistance
- ▶ Water resistance
- ▶ Contains no solvents
- ▶ For internal use
- ▶ Easy application
- ▶ Monolithic finishing surface
- ▶ Glossy finishing surface



PRODUCT DESCRIPTION **2-component, pigmented epoxy resin for thin- layer coating with high chemical resistance**
 The pruct is available in the following colours: RAL 1001, 3009, 3013, 5010, 6001, 7030, 7032*, 7035, 7037, 7040*, 7047, 8004, 9005, 9010. Other colours according to RAL colour scale on request.
 * - in stock.

FIELD OF USE It is used to produce a thin-layer coating on concrete and other cement-based substrates for light loads, such as warehouses, workshops, garages, parking garages, work halls, industrial laboratories, waste water etc., and everywhere, where high resistance to chemicals is necessary.

For facilities with a heavy load it is also possible to install an additional, third component, dry quartz sand EPOXY SAND, which significantly increases the mechanical properties.

- Installation in one layer is for a highly chemical resistant dust protection for cement bases
- Installation of several layers by adding EPOXY SAND ES is for a high mechanical and chemical resistance
- Installation with strewn dry sand is for a non- slip surface

- PRODUCT PROPERTIES**
- Excellent chemical resistance
 - Water resistance
 - Contains no solvents
 - For internal use
 - Easy application
 - Monolithic finishing surface
 - Glossy finishing surface

PRODUCT DATA	
BASIC INFORMATION	<p>Appearance Component A: pigmented liquid; component B: yellowish liquid</p> <p>Packing 25 kg (20 kg of component A and 5 kg of component B)</p> <p>Storage and expiration date At an appropriate storage (dry, in the temperature range between +5 °C and +30 °C in original and undamaged packaging), 12 months from date of production. Protect the product from freezing, direct sun and heat sources.</p>
TECHNICAL DATA	<p>Chemical composition Filled epoxy resin and modified cyclo-aliphatic hardener</p> <p>Density of component A (25 °C) 1,2 g/cm³</p> <p>Density of component B (25 °C) 1,0 g/cm³</p> <p>Density of compound (25 °C) 1,45 g/cm³</p> <p>Density of compound and 30 % EPOXY SAND ES 0,1-0,3 (25°C) 1,60 g/cm³</p> <p>Viscosity of component A (25°C) cca. 4000 mPa.s</p> <p>Viscosity of component B (25°C) cca. 100 mPa.s</p> <p>Viscosity of compound (25°C) 3000 mPa.s</p> <p>Bond strength on primer > 1,5 N/mm²</p> <p>Compressive strength of mortar (KF 6100 CH:ES 0,1-0,3=1:0,3) 75 MPa</p> <p>Flexural strength of mortar (KF 6100 CH:ES 0,1-0,3=1:0,3) 35 MPa</p> <p>Shore D after 24 hours 45</p> <p>Shore D after 48 hours 60</p> <p>Shore D after 3 days 70</p> <p>Shore D after 7 days 75</p> <p>Content of volatile organic compounds < 10 ml/m³</p> <p>Resistance to abrasion, BCA 10 ȳm</p> <p>Dry matter content 100 %</p> <p>Fire resistance class E_{fl}</p>

HEAT RESISTANCE	Exposure	Dry heat
	permanent:	+50°C
	short term, up to 7 days:	+80°C
	short term, up to 12 hours:	+100°C

Exposure shall not be simultaneously chemical and mechanical.

INSTRUCTIONS FOR USE

INSTALLATION 1. Thin- layer smooth epoxy coat of approx. 500 μ m:

Primer:	1 layer KEMAPOX GRUND 2000
Final coat:	1 layer KEMAPOX C 6100

2. Thin- layer structured epoxy coat of approx. 500 μ m:

Primer:	1 layer KEMAPOX GRUND 2000
Final coat:	1 layer KEMAPOX C 6100 + KEMAPOX DENS SM

3. Non- slip thin- layer epoxy coat of approx 700 μ m:

Primer;	1 layer KEMAPOX GRUND 2000
Final coat:	1 layer KEMAPOX C 6100 + EPOXY SAND ES O,1-0,3

4. System with two layers and thichness of approx. 1 mm:

Primer:	1 layer KEMAPOX GRUND 2000
Intermediate layer:	1 layer KEMAPOX C 6000 + EPOXY SAND ES 0,1-0,3
Final coat:	1 layer KEMAPOX C 6100

5. System with three layers and thickness of approx 1,5 mm:

Primer:	1 layer KEMAPOX GRUND 2000
Intermediate layer:	2 layers KEMAPOX C 6000 + EPOXY SAND ES 0,1-0,3
Final coat:	1 layer KEMAPOX C 6100

The described systems are for normally absorbent and flat cement surfaces. If a prior epoxy levelling is necessary, use KEMAPOX GRUND 2000 (see technical data sheet for KEMAPOX GRUND 2000)

- CONSUMPTION**
1. Primer prior to installation of epoxy floorings, substrate reinforcement, anti- dust coating, bonding layer with KEMAPOX Grund 2000: 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) with KEMAPOX Grund 2000: 1.4 to 1.6 kg/m² for 1 mm thickness (mixing ratio resin: sand = 1:1)
 3. Thin layer smooth or structured epoxy coating approx. 500 μm: from 0.4 to 0.5 kg/m²
 4. Thin non-slip epoxy coating approx. 700 μm: from 0.4 to 0.5 kg/m² + approx. 0.5 kg EPOXY SAND ES 0.1 - 0.3/ m²
 5. System with two layers and thickness approx. 1 mm: approx. 1.0 kg/m² (0.4 kg of resin A + B and 0.15 kg of sand EPOXY SAND ES 0.1 - 0.3 - intermediate layer with KEMAPOX C 6000 and 0.4 - 0.5 kg for the final coat)
 6. System with three layers and a thickness of approx. 1.5 mm: approx. 1.5 kg/m² (0.8 kg of resin A + B and 0.3 kg of sand EPOXY SAND ES 0.1 to 0.3 - two intermediate layers with KEMAPOX C 6000 and 0.4 - 0.5 kg for the final coating)

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). Substrate moisture content may not be more than 3,5%, measured by the CM method (concrete MB at least 35).

BASE PREPARATION Porosity, irregularities and cracks in the substrate are repaired with the priming of the substrate or leveling, use appropriate products KEMAPOX GRUND and KEMAPOX FILL. Peaks in the substrate must be adequately processed. Before applying the product it is necessary to remove all dust and loose particles, preferably with a broom or vacuum cleaner.

MIX RATIO 4:1 ratio of components A and B (by weight);; Dry quartz sand EPOXY SAND ES 0,1-0,3 MM (APPROX. 30 %)can be added as required

MIX TIME The epoxy resin is usually denser than the hardener, so that they can not easily be stirred. Before mixing component A with component B, mix the two components individually. The recommended time for mixing the individual components is 2-3 minutes, then all of part B is mixed into all of part A. With an mixer intensively stir the mixture into a homogenous compound. It is important that the compound is intensively stirred to evenly distribute the hardener 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 becomes completely homogeneous and of uniform color. Mixing time should be a at least 3 minutes. Recommended temperature for mixing must be higher than 15 ° C. Before use pour the mixed components in a new, clean container and mix all together again. The second mixing should not take too long to avoid the entry of too much air in the compound. The container must be clean and free of grease, oil or other impurities.

If you are preparing a small quantity of epoxy coating, use a third clean container. First mix the two components individually, then pour in a third container lthe exact quantity of component A and component B. The mixing procedure should be the same as described above. Use weighing scales with an accuracy of + / - 0.01 kg.

If you add a third component of dry quartz sand, first mix the two components according to instructions. 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.

If you are preparing the compound for a structured coating, first mix the two components according to instructions. Then gradually add KEMAPOX DENS SM and mix thoroughly.

MIX TOOL Component B must be added to component A and mixed thoroughly, preferably with a spiral stirrer 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.

In the case of humidity to 10% KEMAPOX GRUND 2040 can be used instead of KEMAPOX GRUND 2000.

1. Primer prior to installation of epoxy floorings, substrate reinforcement, anti- dust coating, bonding layer:
Pour mixed material (follow instructions) over the surface and distribute evenly with spatula from hard gum, roller or trowel. After about 5 minutes evenly distribute in cross pulls, using a paint roller. In the case of highly absorbent substrate apply the second layer after approx. 10-12 hours (depending on temperature).

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

Prepare your material according to instruction and pour it over the surface. Use a spatula of hard gum or masonry trowel and distribute the resin to the desired thickness. Depending on the project the fresh resin can also be strewn with dry sand.

3. Smooth or structured thin layer epoxy coating:

Prepare your material according to instructions and pour it over the surface. Distribute evenly in cross pulls with a paint roller.

4. System with two or three layers:

Pour the mixed material (follow instructions) over the surface and distribute evenly with a spatula from hard gum, roller or trowel. After about 5 minutes distribute evenly, using a paint roller in cross pulls. Apply the second coat after approx. 10-12 hours (depending on temperature). Evenly distribute the final layer in cross pulls using a paint roller.

TOOL KEMAPOX C 6100 is applied to the prepared surface with a paint roller, masonry trowel, notched trowel or BIFLEX spatula.

CLEANING OF TOOL Clean all tools immediately after use with diluent KEMAPOX CLEANER. Hardened material can only be removed mechanically.

OPEN TIME 40 minutes (at +23°C, 100 g)

COAGULATION Processing time:

Temperature	Ready for foot traffic	Light load	Full load
+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	3 - 4 days
+20°C	12 - 24 hours	2 - 3 days
+30°C	8 - 12 hours	1 - 2 days

Times are approximate and depend on the ambient conditions, particularly 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 fresh install epoxy resin from freezing, raining and other weather conditions. Use product in temperatures more then +10°C.
 - Recommended Relative Air Humidity: 80% r.h. max.
 - Maximum moisture content in substrate can be 3,5% for concrete with mark MB C30/37 (determined by CM method or laboratory drying)
 - Store the product in dry place, protected form direct sun and freezing.
 - Freshly applied KEMAPOX resin should be protected from damp, condensation and water for at least 24 hours.
 - For external applications, apply resin when temperatures are falling. If applied during rising temperatures small holes may occur on the surface.
 - If heating in the place of application is required, do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of CO₂ and H₂O, which may adversely affect the appearanc of the finish surface. For heating use only electric powered heating systems.
 - Dew Point: The substrate and unhardened epoxy resin must be at least 3°C below the dew point to reduce the risk of condensation or blooming on the finish surface.
 - Direct sunlight may cause discolouration and color deviations, but this has no effect on the function and properties of the applied coating.
 - Uninterrupted access to closed site, 3 phase current, strength of at least 32 A, lighting for surfaces of application, 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 data sheet were 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 shee.

PROOFS


NORMS/STANDARDS Product in accordance with 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 the eyes. Stains on the skin must be washed with soap and water, but if accidentally splashed into the eyes, wash immediately with plenty of water and seek medical advice.

Further information on storage, handling and the use of compounds are contained in this safety data sheet which contains safety, toxicological and ecological data, also pay attention to the warnings on the original packaging.

OTHER INFORMATION

	KEMA <u>Puconci d.o.o.</u> , <u>Puconci 109</u> , 9201 <u>Puconci</u> , SLOVENIJA
Glej datum proizvodnje natisnjen na embalaži	
EN 13813 SR-B1,5-AR0,5-IR3	
Estrih iz umetnih mas/premaz za notranje prostore (vgradnja po navodilih tehničnega lista)	
Razred odziva na ogenj	E _{fl}
Syntetic Resin Screed-estrihi iz umetnih smol:	SR
Odpornost na obrabo (Abrasion Resistance):	AR 0,5
Sprijemna trdnost (Bond):	B 1,5
Udarna trdnost (Impact Resistance):	IR 3

LEGAL BASE

Information and recommendations relating to the application and end use of Kema products, are given in good faith based on our temporary knowledge and experience of the products if 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 of orders fall under current sales and supply conditions. Customers should always refer to the latest technical data sheet of a product, copies are available on request.