



## KEMAPOX SL 5100

Chemical-resistant self-levelling final epoxy coating

- ▶ Excellent chemical resistance
- ▶ Water resistance
- ▶ For indoor use
- ▶ Contains no solvents
- ▶ Easy to install
- ▶ Monolithic finishing surface



<b>PRODUCT DESCRIPTION</b>	<p><b>2-component, pigmented, self-levelling epoxy resin with high chemical resistance.</b></p> <p>The product is available in the following colors: RAL 1001, 3009, 3013, 5010, 6001, 7030, 7032 * 7035, 7037, 7040 *, 7047, 8004, 9005, the 9010. Other colors according to RAL color scale on request. *-in stock.</p>
<b>FIELD OF USE</b>	<p>It is used to produce self-levelling floorings on concrete and other cement-based substrate for normal to medium loads, such as laboratories, hospitals, chemical industry, labor halls, garages, production facilities etc., and everywhere, where high resistance to chemicals is required.</p>
<b>PRODUCT PROPERTIES</b>	<ol style="list-style-type: none"> <li>1. Self-levelling industrial flooring in rooms with normal and medium high load.</li> <li>2. Self-levelling epoxy flooring with high chemical resistance</li> </ol> <ul style="list-style-type: none"> <li>• Excellent chemical resistance</li> <li>• Water resistance</li> <li>• For indoor use</li> <li>• Contains no solvents</li> <li>• Easy to install</li> <li>• Monolithic finishing surface</li> </ul>



PRODUCT DATA		
BASIC INFORMATION	<b>Appearance</b>	Component A: pigmented liquid; component B: yellowish liquid
	<b>Packing</b>	25 kg (20 kg of component A + 5 kg of component B)
	<b>Storage and expiration date</b>	12 months from date of production if stored properly in undamaged original sealed packaging in dry and cool conditions. Date of production is printed on packaging.
TECHNICAL DATA	<b>Chemical composition</b>	Filled epoxy resin and modified cyclo-aliphatic hardener
	<b>Density of component A</b>	1,2 g/cm <sup>3</sup>
	<b>Density of component B</b>	1,2 g/cm <sup>3</sup>
	<b>Density of compound</b>	1,45 g/cm <sup>3</sup>
	<b>Density of compound and 30 % EPOXY SAND ES 0,1-0,3</b>	g/cm <sup>3</sup>
	<b>Viscosity of componen A</b>	cca. 4000 mPa.s
	<b>Viscosity of component B</b>	cca. 100 mPa.s
	<b>Viscosity of compound</b>	mPa.s
	<b>Bond strength on primer</b>	> 1,5 N/mm <sup>2</sup>
	<b>Compressive strength of mortar (KF 5100 CH:ES 0,1-0,3=1:0,3)</b>	
	<b>Flexural strength of mortar (KF 5100 CH:ES 0,1-0,3=1:0,3)</b>	
	<b>Shore D after 24 hours</b>	45
	<b>Shore D after 48 hours</b>	60
	<b>Shore D after 3 days</b>	70
	<b>Shore D after 7 days</b>	75
	<b>Content of volatile organic substances, total</b>	< 10 ml/m <sup>3</sup>
	<b>Resistance to abrasion, BCA</b>	10 ȳm
	<b>Dry matter content</b>	100 %
	<b>Fire resistance class</b>	E <sub>fl</sub>



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

Exposure should not be simultaneously chemical and mechanical.

## INSTRUCTIONS FOR USE

**INSTALLATION** 1. Self-levelling epoxy flooring of thickness approx. 1 mm:

Primer: 1 layer KEMAPOX GRUND 2000

Final coat: 1 layer KEMAPOX SL 5100

2. Self-levelling epoxy flooring of thickness 1,5 - 3 mm:

Primer: 1 layer KEMAPOX GRUND 2000

Final coat: 1 layer KEMAPOX SL 5100 + EPOXY SAND ES 0,1-0,3

3. Self-levelling epoxy flooring of thickness approx. 4 mm:

Primer: 1 layer KEMAPOX GRUND 2000

Intermediate layer: 1 layer KEMAPOX SL 5100 + EPOXY SAND ES 0,1-0,3 + EPOXY SAND ES 80

Final coat: 1 layer KEMAPOX C 6100

The described systems are for normal absorbent and flat cement substrates. If a prior epoxy leveling 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/m<sup>2</sup> 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 - 1.6 kg/m<sup>2</sup> for 1 mm thickness (mixing ratio resin: sand = 1:1)
  3. Self- levelling epoxy flooring, thickness of approx. 1 mm: approx. 1.2 kg/m<sup>2</sup>
  4. Self- levelling epoxy flooring, thickness of approx. 1.5 - 3 mm: approx. 1.8 - 2 kg compound/m<sup>2</sup> (1.4 - 1.5 kg of resin A + B and 0.4 - 0.5 kg of sand EPOXY SAND ES 0.1 - 0.3)
  5. Self- levelling epoxy flooring, thickness of approx. 4 mm: approx. 4 kg compound/m<sup>2</sup> (2.7 kg of resin A + B and 1.3 kg of sand EPOXY SAND ES 0.1 - 0.3) + 2 kg/m<sup>2</sup> EPOXY SAND EC 80 for strewing + 0.6 kg/m<sup>2</sup> KEMAPOX C 6100 CHEMRES

These data are theoretical and do not include additional material consumption, which may result from the porous surface, slope levelling or losses at installation etc..

**BASE** The substrate must be clean, dry, stable, sound and without 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 shall 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 processed appropriate. 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 if 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 a 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 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 the 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.

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**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.

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**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 a spatula from hard gum, roller or trowel. After about 5 minutes distribute evenly in cross pulls, using paint roller. In the case of highly absorbent substrate apply the second coat after approx. 10-12 hours (depending on temperature).

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

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

3. Self- levelling epoxy flooring of 1-3 mm thickness:

Prepare your material according to instructions and pour it over the surface. Use a notched trowel to distribute the resin to the desired thickness. Additionally air the surface with a roller in two directions, so that we remove as much air and ensure an even thickness.

4th Self- levelling epoxy flooring of 4 mm thickness:

Prepare your materials as directed and pour it over the surface. Using the notched trowel spread the resin to the desired thickness. Additional surface zračimo through ježastega roller in two directions, so that we remove as much air and ensure an even thickness. Still fresh flooring sprinkled with dry sand, make sure that the sand sprinkled in surplus. Seal coat KEMAPOX C 6100 apply in 24 hours. Before applying sand to fully remove and clean the surface thoroughly. KEMAPOX C 6100 pour on surface, it spread through the rubber float and treated with a brush or roller in two directions (cross).

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**TOOL** For spreading the paint roller is to used.

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**CLEANING OF TOOL** Clean all tools and application equipment with KEMAPOX SOLVENT immediately after use. Hardened and/or cured material can only be removed mechanically.

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## 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 temperature more then +10°C.
  - Relative Air Humidity: 80% r.h. max.
  - Maximum moisture content in substrate can be 3,5% (on concrete with mark MB C30/37, CM method)
  - Store the product in dry place, protected from 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 on a falling temperature. If applied during rising temperatures "pin holing" may occur from rising air.
  - If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO<sub>2</sub> and H<sub>2</sub>O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.
  - Dew Point: Beware of condensation! The substrate and uncured floor must be at least 3°C above the dew point to reduce the risk of condensation or blooming on the floor finish.
  - Epoxy resins come in two parts: resin and hardener. The two parts must be mixed in the precise ratio given in the manufacturer's instructions. Imprecise measuring and mixing prevents the epoxy resin from solidifying or curing.

**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.

**Local restrictions:** Due to specific local regulations the installed product can differ from country to country. For exact instructions for use a country specific technical sheet should be obtained.

## SAFETY DATA

### EYES AND FACE:

Chemical resistant goggles and face shield must be worn. Examples of eye protection include a chemical safety goggle, or chemical safety goggle in combination with a full face shield when there is a greater risk of splash. Do not wear contact lenses.

### SKIN:

Wear chemical resistant (impervious) gloves.


### RESPIRATORY:

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

### PROTECTIVE CLOTHING:

If repeated or prolonged skin contact or contamination is likely, protective clothing should be worn.

## OTHER INFORMATION

	KEMA Puconci d.o.o., Puconci 109, 9201 Puconci, SLOVENIJA
Glej datum proizvodnje natisnjen na embalaži	
<b>EN 13813 SR-B1,5-AR0,5-IR3</b>	
Estrih iz umetnih mas/premaz za notranje prostore (vgradnja po navodilih tehničnega lista)	
Razred odziva na ogenj	E <sub>fl</sub>
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 related to use of KEMA products are presented in good faith and believed to be correct. The later is based on our knowledge and experience with the products. Information is supplied upon the condition that products are stored and used according to the recommendations and the persons receiving the same will make their own determination as to its suitability for their purposes prior to use. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to Information or the product to which information refers. In no event will KEMA be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information or the product to which Information refers. Nothing contained herein is to be construed as a recommendation to the use any product, process, equipment or formulation in conflict with any patent, and KEMA makes no representation or warranty, expressed or implied that the use thereof will not infringe any patent. All orders fall under current sales and supply conditions. The user should always check the latest technical sheet available upon demand.