KEMA Puconci d.o.o.,
Puconci 109, 9201 Puconci, Slovenija
T: +386 (0)2 545 95 00, F: +386 (0)2 545 95 10
Technical consulting: +386 (0)2 545 95 28, +386 (0)2 545 95 73
I: www.kema-on.net | E: info@kema.si

Label: **TL_Pox_Color_komp_A**
Issue: **May 2010**
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TECHNICAL DATA SHEET

KEMAPOX COLOR

Thin-layer epoxy floor paint

PRODUCT DESCRIPTION

2-component thin-layer epoxy coating, suitable for floor protection in garages, warehouses, workrooms, etc., onto concrete, magnesite and anhydride substrates.

Field of use

Fully cured it displays a matt surface, which is water-vapour permeable and easily cleaned. Application in two or three coats, in this case suitable for light mechanical loads. As a third component dry quartz sand, EPOXY SAND, can be used which substantially increases mechanical resistance and is suitable for middle mechanical loads.

For final coating of the cement based substrates with higher moisture content, e .g . objects without hydro isolation, …

Product properties

- Colours: RAL 7032, RAL 7040 on stock, other colours in accordance with RAL chart on order
- Increased wear and chemical resistance
- Water-vapour permeable
- For outdoor and indoor use
- Mixing ratio: A:B=1:3 (w/w)
- Temperature resistance of cured product, -30°C to +90 °C
- VOC-free
- Filled

PRODUCT DATA

Basic information

Appearance	Epoxy resin (viscose liquid) and hardener (dense transparent liquid)
Packing	20 kg (5 kg of component A + 15 kg of component B)
Storage and expiration date	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

Type of product	Epoxy resin with modified amino hardener
Shore hardness D	
after 24 h	35
after 48 h	40
after 3 d	55
after 7 d	60
Component A	
Epoxide Equivalent Weight	190-210 g/equiv.
Epoxide Value	0,5±0,03 equiv/100g
Viscosity (+25°C)	700-1000 mPa.s

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Density (+25°C)	1,12 g/cm^3
Component B	
Amine number	45-65 mg KOH/g
Viscosity (+25°C)	5000 mPa.s
Density (+25°C)	1,5 g/cm^3

INSTRUCTIONS FOR USE

Consumption
0,2-0,4 kg/m^2 in single coat

Base
The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. The concrete substrate must be sound and of sufficient compressive strength (minimum 25 MPa) with a average pull off strength of 1.5 MPa (minimum measured value has to up to 1,0 MPa). Moisture content in substrate has to be up to maximum 4% (CM method, concrete mark MB at least 35)

Base preparation
Repairs to the substrate, filling of blowholes/voids and surface levelling can be carried out using appropriate products from the KEMA program (for example KEMAPOX GRUND products).
The concrete or screed substrate has to be primed or levelled in order to achieve aneven surface. High spots must be removed by e.g. grinding.
All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

Mix ratio
A:B=1:3 (rate of components A and B); Dry quartz sand is add regarding the usage

Mix time
The resin typically is thicker and heavier than the hardener, so they don't always blend together too easily. Before blending, mix the components separately to reduce their viscosity and make them easier to blend. After mixing each component for 2 to 3 minutes, place correctly proportioned amounts of component B in component A. Mix for about 1,5 minutes, scrape the sides and bottom of the bucket, and then mix for another 1,5 min until homogenous mixture is reached. When mixing, move the paddle in a circular pattern with an up-and down motion. Before use place the mixture in third container and mix again. The third mixing container must be clean and free of dirt, oil, grease, or other contaminants. Additional mixing is not suppose to be very long-time, to prevent too much air bubbles in mixture.
If smaller quantity of mixture is to prepare, use separate mixing container. Before blending, mix the component for 2-3 minutes separately and then place correctly proportioned amounts of each ingredient in a mixing container. The mixing container, must be clean and free of dirt, oil, grease, or other contaminants. For weighing of smaller amounts use digital weighing machine, with precision +/- 0,001 kg.
When third component, dry quartz sand has to be added, mix first A and B considering the proportion and direction for mixing. Then slowly add the aggregate and mix to a uniform consistency. Sand has to be added gradually in steps of 15%. Check with the epoxy manufacturer for aggregate proportions.

Mix tool
KEMAPOX must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment.

Installation
KEMAPOX FINAL 6500 AQUA is used as final epoxy coat and also as supporting layer with adding the quartz sand. In all cases the application is allow onto sufficient prepared substrate. Prior the application confirm substrate moisture content, r.h. and dew point. If < 4% pbw moisture content (also atmospheric condition, dew point and temperature of substrates hat to be suitable), the application can be started.
SUBSTRATE PREPARATION - GRINDING
Prior application all other layers in KEMA FLOORSYSTEM EP-C1 (C2, C3 and SL-C) substrate has to be very well grind with usage of grinding machine. Before application of next layer (depend on FLOORSYSTEM) the surface has to be well vacuum.
IMPREGNATION OF SUBSTRATE AND BONDING LAYER + BROADCASTING WITH SAND
For impregnation and bonding layer use the appropriate product KEMAPOX GRUND (regarding to substrate condition). Mixed epoxy resin pour onto prepared substrate and with spread equally on substrate with rubber shovel, trowel or roller. After 5 minutes equally spread with paint roller. Still fresh resin broadcast with dry quartz sand EPOXY SAND ES granulation 0,1-0,3 mm or 0,3-0,8 mm, depend of thickness of requirements of levelling.
Possible is also priming with KEMAPOX FINAL 6500 AQUA diluted with water 10-15%.
VACUUM OF REDUNDANT SAND
After 10-12 hours (depending on temperature) from application and broadcasting the quartz sand the substrate has to be cleaned with vacuum-cleaner.
SUPPORTING LAYER
Final layer with sand or supporting layer can be install in one or two layers, depending on applied system or requirements of project. Onto prepared substrate with KEMAPOX GRUND apply coloured epoxy coat mixed with quartz sand in defined quantity. Mixed epoxy resin pour onto prepared substrate and with spread equally on substrate with rubber shovel, trowel or roller. After 5 minutes equally spread with paint roller. The second supporting layer can be applied within 10-12 hours after first layer (depending on temperature). Instead of one or two supporting layer with KEMAPOX FINAL 6500 AQUA can be also on self-levelling layer (Floorsystem EP-SL-C) with KEMAPOX FINAL 5500 AQUA. Possible is also not to apply supporting layer (FLOORSYSTEM EP-C1).
PIGMENTED FINAL COAT
Final coat can be applied after 10-12 hours after application of last supporting layer or impregnation. Mixed epoxy resin pour onto prepared substrate and with spread equally on substrate with rubber shovel, trowel or roller. After 5 minutes equally spread with paint roller.

Tool
For spreading the steel shovel, paint roller or trowel is to used.

Pot life
60 minutes, 100 g (at +23°C)

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.

Coagulation

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See table below

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 +8°C.
- Relative Air Humidity: 80% r.h. max.
- Maximum moisture content in substrate can be 4% (on concrete with mark MB C30/37, CM method)
- 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 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 CO2 and H2O 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

WAITING TIMES / OVERCOATING

KEMAPOX FINAL on **KEMAPOX GRUND**

Temperature of substrate	Minimum	Maximum
+10°C	24 hours	72 hours
+20°C	12 hours	48 hours
+30°C	8 hours	24 hours

KEMAPOX FINAL on **KEMAPOX FINAL**

Temperature of substrate	Minimum	Maximum
+10°C	30 hours	72 hours
+20°C	24 hours	48 hours
+30°C	16 hours	24 hours

READY FOR USE

Temperature	Foot traffic	Light traffic	Full cure
+10°C	72 hours	6 days	10 days
+20°C	24 hours	4 days	7 days
+30°C	18 hours	2 days	5 days

LEGAL BASE

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user should always check the latest technical sheet available upon demand.