

Kemapoxy 150

High Mechanical and Chemical Resistance, Transparent Epoxy Coating & Mortars.

Description:

- **KEMAPOXY 150** is a two components, solvent free, non pigmented liquid epoxy resin
- It is used as a coating where outstanding chemical resistance and mechanical stresses are major requirements.
- It can also be mixed with considerable amounts of mineral aggregates to produce, non-shrink, multi - purpose epoxy mortar with high mechanical and chemical properties.
- It can be used in drinking - water tanks and food stores.
- Complies with ASTM C 881 & ES 6447.

Fields of Application:

- Protective coating for concrete floorings and wall surfaces subject to chemical attack and high mechanical stresses.
- Can be used as screed for industrial floors.
- Repairing mortar for concrete structure.
- Filling of concrete cracks.
- Grouting mortar under supports of machine and steel structures.
- Bonding mortar for most of the building materials, fixing dowels and for anchoring the rebar.
- For tank lamination with fiber glass sheet.

Advantages:

- High resistance against mechanical stresses and chemical effects.
- Ready to use after mixing the 2 components.
- Adding fillers to **KEMAPOXY 150**, enables producing variety of epoxy mortars in different consistencies according to the amount of added fillers.
- Anti fungus and anti bacteria.

Technical Data :(at 25 °C)

Colour	Transparent
Solid content (by weight)	100 %
Density	1.11 ±0.02 kg/l
Mixing ratio A: B by weight	2: 1
Pot life	30 minutes (decreases at higher temperatures)
Initial setting time	8 hours
Final setting time	24 hours
Full hardness	7 days
Recoating time	18-24 hours
Min. application temperature	5°C
Temperature resistance	90° C (Wet) 140°C (dry)
Thinner	KEMSOLVE 3, KEMSOLVE 4 (5% when needed)

Mechanical properties for mortar:

(depends mainly on the mixing ratio between the epoxy resin and the filling material)

Density	1.8 – 2.1t/m ³
Compressive strength	500 - 1000 kg/cm ²
Flexural strength	200 - 400 kg/cm ²
Tensile strength	150 - 250 kg/cm ²
Bond strength	> concrete
Abrasion resistance (BOEME)	1 - 6cm ³ /50cm ²
Temperature resistance	humid 90°C dry 140°C

Protective Coating Products

Epoxy Paints

Chemical Resistance : (Immersion time 7 days)

Sulphuric acid	50%	ex	Sodium hydroxide 50%	ex
Hydrochloric acid	20%	ex	Potassium hydroxide 50%	ex
	25%	g	Ammonium nitrate	ex
Phosphoric acid	50%	g	Fuels	Petrol
Nitric acid	10%	ex		ex
	20%	g		Benzin
Acetic acid	5%	ex		g
	20%	g		

ex: excellent (no softening + no bubbles + no change in colour)

g: good (no softening + no bubbles + slight change in colour and weight)

Theoretical Rate of Consumption:

- 225 gm / m² / coat 200 μ.
- 1.1 - 1.8 kg/m² / 3 mm. for self levelling mortar
- 0.95 - 1.7 kg/m² / 5 mm. for trowel mortar

Directions for Use:

(A) SURFACE PREPARATION:

- The substrate must be capable of resisting the intended mechanical stresses (C28>250 kg/cm²).
- The concrete surface must be dry (dampness not more than 4 %) . Free of dust and laitance, oil, grease and other impurities which can affect the adhesion.

(B) MIXING:

- Component B (hardener) should be poured into component A (resin) and mixed together using a suitable mechanical mixer for a period of 3 minutes. The velocity of the mixer must not exceed 300 r.p.m.
- In the case of mortar, the filling material is added to the mixture and mixed again for a period of 3 minutes.
- The mixture is then transferred to a larger clean vessel, all materials stuck to the walls of the original container must be scraped off with a knife and added and renewed stirring.

(C) MIXING RATIO OF THE FILLING MATERIALS:

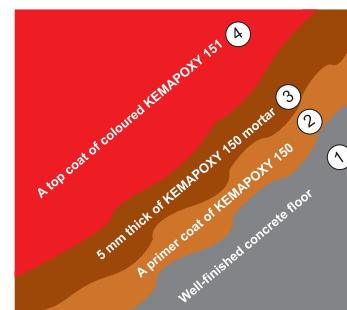
- Filling materials should contain not less than 20 % fine granules (quartz powder).
- A colored filler such as kemstone and kemagrano dry granules can be used for decorative flooring.
- Mixing ratio of (Epoxy filler) 1 : 2 to 1 : 4 is used for producing self levelling mortar.
- Mixing ratio of (Epoxy filler) 1 : 5 to 1 : 10 is used for surface topping and repair mortars.

(D) APPLICATION OF EPOXY PAINT AND MORTAR:

- Paint is done with a brush, roller or spray after applying primer coat with **KEMAPOXY 101 SF** for concrete and **KEMAPOXY 131** for steel surfaces.
- Epoxy mortar is laid using mop for self levelling mortar and trowel for high filling material content after prime the substrate with a layer of **KEMAPOXY 150** and the mortar to be laid while the primer is still wet.
- Clean tools by **KEMSOLV 1**.

(E) STEPS FOR ANCHORING THE REBAR:

- Determining the places to install rebar according to the design drawings.
- Drill holes with a diameter of 2-4 mm more than the diameter of the rebar and a depth of 7-10 times the diameter of the rebar.
- Cleaning the hole with compressed air, then applying a primer coat of **Kemapoxy 150**.
- Fill about 70% of the depth with **Kemepoxy 150** mortar.
- Put the rebar required to be fixed while maintaining its integrity in the specified position and level the epoxy mortar and leave it to the final hardness for a period of not less than 7 days.



Flooring layers of KEMAPOXY 150 mortar

Safety Precautions:

- Application should be carried out in well ventilated place.
 - Gloves, protective clothing and eye goggles should be worn during application.
 - Skin contaminations should be immediately cleaned with soap and plenty of water.
- Don't use solvent.
- If the material is splashed into the eyes, they should be immediately washed with water and then report to an eye specialist.
 - Do not eat or smoke during application.

Storage / Shelf life:

- 2 years under suitable storage conditions and in closed containers.

Packages:

- Kits (A+B) 1 kg and 3kg .
- (Follow the mixing ratios - by weight-indicated on the package).