

## POLEPOX-PR 824

### TRANSPARENT, EPOXY-BASED RESIN, USED AS AN ADHESIVE COMPONENT BETWEEN CONCRETE SURFACES AND EPOXY COATINGS

#### GENERAL CHARACTERISTICS

**POLEPOX-PR 824** is a clear, epoxy, two-component resin, which is used as an adhesive component between concrete surfaces and final epoxy coatings.

- Penetrates in depth.
- Eliminates dust from decay in old & new floorings, reinforcing their durability.
- Offers high mechanical resistance and chemical protection against acid solutions, alkalis, oil, grease etc.
- It can be easily repaired locally if necessary, but must precede grinding of the surface with a sandpaper or mosaic machine.
- Ideal for hospitals, for antibacterial use.

#### TECHNICAL DATA

Basis:	two-component epoxy resin
Appearance:	liquid
Colors:	transparent
Viscosity (A+B):	41 ± 1 mPa•s at 23°C
Density (A+B):	0,933 ± 0,003 gr/cm <sup>3</sup>
Mixing proportion (A:B):	50:50 by weight
Application time:	approx. 1 h at 23°C
Final strength:	after 7 days at 23°C
Walkability:	after 2 days
Adhesive strength:	3,70 ± 0,05 N/mm <sup>2</sup> (breaking of concrete)
Temperature for the application and drying of the material:	12 – 35°C

## SUBSTRATE REQUIREMENTS

Concrete quality:	at least C20/25
Age:	at least 28 days
Moisture content:	below 4%

## PREPARATION - APPLICATION

**Applied only on dry surfaces. Protected from arising humidity and free of materials that might prevent bonding e.g. dust, loose particles, grease etc.** The success in the application depends on the right preparation of the underlay and use of the material.

- Treatment of the surface with a mosaic machine, or with sandblast or rotor machine, depending on the thickness of the final coating.
- **Good, dry** cleaning of the surface from dust and residues with vacuum cleaner and use of squeegees.
- Good mixing of components A (resin) & B (hardener) packed into separate containers in fixed weight proportions. Mixing should be performed using a low revolution mixer (300-600 rpm) for 1-2 min. Stirring of the mixture should be performed thoroughly near the sides and bottom of the container in order to achieve uniform dispersion of the hardener.
- In case of troweled surfaces when there is a need for a penetrating material, it is suggested the application of the **POLEPOX-PR 824**, with dilution with 50% **EPOXY SOLVENT 132** for deeper penetration, in two layers.
- Then, application of another or more layers, with undiluted **POLEPOX-PR 824**, until the surface is saturated and a film is created. If mat spots appear, then another layer is necessary. The next layer follows the other before the previous starts to dry. The dilution and the number of layers vary from one surface to another depending on the absorbency.

## CONSUMPTION

- 250-600 gr/m<sup>2</sup> in two layers depending on the type and the absorbency of the underlay.

## APPLICATION TOOLS

Nappy rolls, brushes, squeegees for smooth industrial surfaces. Tools should be cleaned with **EPOXY SOLVENT 132** immediately after use.

## PACKAGING

Supplied in packages of 30 Kg (two drums). Components A and B have the fixed weight proportion.

## STORAGE

One year in unopened containers in dry places with minimum temperature 5°C and maximum temperature 28 °C.

## REMARKS

- Working time of **POLEPOX-PR 824** decreases when ambient temperature rises.
- **It cannot be applied in thickness for closing cracks or holes.** In this case it can only be used if mixed with fine dry sand.
- In case of cracks or holes we recommend the use of **EPOFIX-H 207** (former EPOXY STUCCO TWO-COMPONENT) or **POLYSMOOTH 2C 803** (former TWO COMPONENT QUARZ FLOOR).
- The usage of mosaic machine must precede the application of **POLEPOX-PR 824** for the creation of pores and the right penetration of the material.
- In case old floors are going to be laid or a long period of time interferes between successive layers (twelve hours in summer or twenty four hours in winter), the surface must be thoroughly cleaned and ground prior to application of a new layer.
- On surfaces with arising humidity, it is recommended to use **POLEPOX-PR 826-W** (former WATER-EPOXY PRIMER) and **POLEPOX FLOOR 828-CW** (former WATER EPOXY HIGH RESISTANT FLOOR), which produces a moisture barrier for thickness more than 2mm.
- After hardening, **POLEPOX-PR 824** is completely safe for health and meets all requirements for food industries.

## CAUTION

The application must take place in well-aired places using protective gloves. Skin or eye contact must be avoided, otherwise wash carefully with soap and water.

**For more information consult the material safety data sheet.**

The information given here is true, represents our best knowledge and is based not only on laboratory work, but also on field experience. However, because of numerous factors affecting results we offer this information without any guarantee and no patent liability is assumed. For additional information or questions, contact the technical department of KDF LTD.

## POLEPOX FLOOR 817

### GENERAL CHARACTERISTICS

**POLEPOX FLOOR 817** is epoxy-based, self-leveling, three-component flooring.

- Creates colored, easy-to-clean flooring without joints, not requiring maintenance and meeting **health standards**.
- Resistant to acid solutions, alkalis, oil, grease, wastes.
- Prevents floorings from creating dust, strengthening their durability and resistance.
- Resistant to mechanical stresses, wearing from friction and chemical effects.
- It is ideal for covering floorings, mosaics, cement surfaces, decks, bio-cleanings, water baths, silos etc.
- Areas of application: food industries, car workshops, parking areas, bio-cleanings, production plants, hospitals for antibacterial use etc.

### TECHNICAL DATA

Basis:	two-component epoxy resin, aggregates
Appearance:	viscous liquid
Viscosity(A+B+C):	7200 ± 800 mPa•s at 23°C
Density (A+B+C):	1,69 ± 0,02 gr/cm <sup>3</sup>
Bulk density (C):	1515 ± 5 gr/lit
Mixing proportion (A:B:C):	38:11:51 by weight
Granulometry (C):	160 µm - 500 µm
Application time:	approx. 40 min at 23°C
Final strength:	after 7 days at 23°C
Compressive strength (A+B+C): (ASTM D 695)	83.7 N/mm <sup>2</sup> , 7 days at 23°C
Flexural strength (A+B+C): (Din 1164)	69.6 N/mm <sup>2</sup> , 7 days at 23°C
Hardness according to SHORE D:	85 ± 3
Walkability:	after 3 days in thickness of 3mm at 23°C
Adhesive strength:	>3 N/mm <sup>2</sup> (breaking of concrete)

Temperature for the application and drying of the material:	12 – 35°C
Colors:	available in 12 basic colors and on request from RAL color card for orders more than 300kg

## SUBSTRATE REQUIREMENTS

Concrete quality:	at least C20/25
Age:	at least 28 days
Moisture content:	below 4%

## PREPARATION - APPLICATION

**Applied only on dry surfaces. Protected from arising humidity and free of materials that might prevent bonding e.g. dust, loose particles, grease etc.** The success in the application depends on the right preparation of the underlay and use of the material.

- Treatment of the surface with a mosaic machine, with sandblast or rotor machine, depending on the thickness of the final coating.
- **Good, dry** cleaning of the surface from dust and residues with vacuum cleaner and squeegees.
- Priming of the surface with **POLEPOX-PR 824** (former EPOXY PRIMER). In case of troweled surfaces when there is a need for a penetrating material, it is suggested the application of the **POLEPOX-PR 824** (former EPOXY PRIMER), with dilution with 50% **EPOXY SOLVENT 132** for deeper penetration, in two layers. Then, application of another or more layers, with undiluted **POLEPOX-PR 824** (former EPOXY PRIMER), until the surface is saturated and a film is created. Consumption: 250-600 gr/m<sup>2</sup>, depending on the absorption of the underlay.
- After hardening of the primer (2-12 hours depending on the ambient temperature) and within 24 hours, follows the application of **POLEPOX FLOOR 817**.
- Good mixing of components A (resin) & B (hardener) packed into separate containers in fixed weight proportions. Mixing should be performed using a low revolution mixer (300-600 rpm) for 1-2 min. Stirring of the mixture should be performed thoroughly near the sides and bottom of the container in order to achieve uniform dispersion of the hardener. Afterwards, the whole quantity of component C (quartz sand) is gradually added into the mixture under continuous stirring until a uniform epoxy mortar is formed.
- The epoxy mortar is poured on the floor and spread on the desired thickness using a notched trowel or special rolls.
- Following the application of the **POLEPOX FLOOR 817**, the self-leveling layer should be rolled using a special spiky-roller in order to release any possibly entrapped air and avoid the formation of bubbles.
- For the creation of a completely non-slip surface, it is recommended on a still fresh layer the dredging of dry, quartz sand with a particle size 0,1-0,4 mm or 0,4-0,8 mm or 0,8-1,25 mm depending on the desired anti-slipping effect. Consumption of quartz sand: approx. 4 kg/m<sup>2</sup>. After hardening of **POLEPOX FLOOR 817**, any loose grains are being removed using a high suction vacuum cleaner. Finally a finishing layer of **POLEPOX COAT 814** (former EPOXY PLASTICOAT) is applied for the creation of an acid proof, easy to clean, non-slip surface. Consumption: 0,8-1 kg/m<sup>2</sup>.

## CONSUMPTION

- 1,7 Kg/m<sup>2</sup>/mm,
  - 3 Kg/m<sup>2</sup>/1,8mm,
  - 4 Kg/m<sup>2</sup>/2,4mm.
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## APPLICATION TOOLS

Rubber rolls, notched trowel or spraying machine depending the desired thickness. Tools should be cleaned with **EPOXY SOLVENT 132** immediately after use.

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## PACKAGING

Supplied in packages of 36 kg (two drums, one bag). Components A,B and C have the fixed weight proportion.

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## STORAGE

One year in unopened containers in dry places with minimum temperature 5°C and maximum temperature 28 °C.

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## REMARKS

- Working time of **POLEPOX FLOOR 817** decreases when ambient temperature rises.
  - In case old floors are going to be laid or a long period of time (12 hours for summer and 24 hours for winter) interferes between successive layers, the surface must be thoroughly cleaned and ground prior to application of a new layer.
  - After hardening, **POLEPOX FLOOR 817** is completely safe for health and meets all requirements for food industries.
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## CAUTION

The application must take place in well-aired places using protective gloves. Skin or eye contact must be avoided, otherwise wash carefully with soap and water.

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