

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.

TECHNICAL DATA

Basis:	two-component epoxy resin
Appearance:	liquid
Colors:	transparent
Viscosity (A+B):	30-150 mPa•s at 25°C
Density (A+B):	0,88 ± 0,003 kg/l
Mixing proportion (A:B):	50:50 by weight
Application time:	approx. 1 h at 25°C
Final strength:	after 7 days at 25°C
Walkability:	after 2 days
Adhesive strength:	>3 N/mm ² (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 30 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.
- Caution must be taken so that temperature of the substrate as well as ambient air remains above 12°C during application and curing of the materials while relative environment humidity does not exceed 75%.
- 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** in two or more layers.
- Then, application of one or more layers, with **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 number of layers vary from one surface to another depending on the absorbency.

CONSUMPTION

250-600 gr/m² 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 solvent 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 35°C, protected from moisture and heat.

REMARKS

- Working time of **POLEPOX-PR 824** decreases when ambient temperature rises.
 - Prolonged storage of partially used containers must be avoided as contact with atmospheric moisture will result in skinning and clouding of the product.
 - **It cannot be applied in thickness for filling cracks or holes.** In this case it can only be used if mixed with fine dry sand.
 - Do not mix or apply unless surface, air and material temperatures are over 12°C during the next 24 hours.
 - Do not apply to floors if there is moisture in the subfloor drive or hydrostatic pressure. Prior precautions measurements of humidity with special device are suggested.
 - In case of cracks or holes we recommend the use of **EPOFIX-H 207**.
 - 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.
 - 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.

POLART FLOOR LIQUID

MICROTOPPING FLOORING

GENERAL CHARACTERISTICS

POLART is polymer-modified, colored, smooth or textured, in-situ (wet-pour) applied cast decorative, cement-based, microtopping flooring. Possesses superior strength and can satisfy the most demanding requirements in aesthetics, style and uniqueness while giving the appearance of an antique flooring. It creates a uniform, roomy floor with the possibility of either shiny or mat final surface look, imparted by special resins used on the top. It can come in endless versions in shade, texture or design, depending on the application technique, providing at the same time high strength and durability.

- Provided in 12 distinct shades, in smooth or textured version.
- Creates high aesthetics flooring and strengthens their durability and resistance.
- Resistant to mechanical stresses, wearing from friction.
- Recommended mainly for indoor surfaces in commercial, business and recreational areas like exhibition halls, galleries, hotel lobbies, restaurants, malls, shops, offices.

TECHNICAL DATA

Basis:	Cement(to be added for final product), polymers (resins), pigments, aggregates
Appearance:	liquid
Colors:	available in 12 shades
Viscosity:	8000-18000 mPa•s at 25°C
Bulk density (C):	1,76 ± 0,01 kg/lit
Mixing proportion (POLART:CEMENT):	75:25 by weight
Granulometry (C):	160 µm - 500 µm
Application time:	approx. 30 min at 25°C
Final strength:	after 28 days at 25°C
Compressive strength with cement: (ASTM D 695)	45 N/mm ² , in 28 days at 25°C
Flexural strength with cement: (Din 1164)	8.5 N/mm ² , in 28 days at 25°C
Temperature for the application and drying of the material:	12– 30°C

SUBSTRATE REQUIREMENTS

Concrete quality:	at least C20/25
Age:	at least 30 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.

The substrate has to be as smooth as possible (a cement/concrete screed or something like that). Superficial expansion joints have to be provided (approximately every 15m² -in a grid of 4m X4m or something like that). Then the stages are as follows:

- Good, dry cleaning of the surface from dust and residues with vacuum cleaner and squeegees.
- Caution must be taken so that temperature of the substrate as well as ambient air remains above 12°C during application and curing of the materials while relative environment humidity does not exceed 75%.
 1. Priming with **POLEPOX PR 824** (solvent-based epoxy primer) or **POLEPOX VISCO PR 825** in a number of layers depending on the porosity of the surface
 2. Broadcasting of quartz sand (0.1-0.4mm) over the entire freshly laid surface
 3. Next day, sweeping/removing of the unstuck quartz sand and applying an optional thin layer of the acrylic primer **RITIVEX 1102**. Then, installation of **POLART** liquid mixed with cement and water will follow same day (75% POLART 25% CEMENT on weight plus 3.5-4kg water). Use a flat metal trowel for the application of the **POLART** mix. Move the trowel in crescents (half-circles) to create the unique POLART patterns (or whatever else you might choose). Use the trowel gently and smoothly to apply the **POLART** mix, make sure you leave behind an approximate thickness of 2-2.5mm. Then let the mix settle. During the application, cover the expansion joints with tapes and remove the tapes right after you finish laying in that part of the surface (don't let the tapes stay for long)
 4. After 3-4 days grind the dry **POLART** surface with sandpaper, gradually doing the, 180 and 220 gauge grinding. Then apply the top varnish, consisting of two different materials: a **varnish primer** first (POLART VARNISH PRIMER), applied in two layers with total consumption 100gr/m², and then the **final top varnish (POLART VARNISH)**, again applied in two layers with total consumption approx. 100gr/m². Each layer of each of the two materials is applied after the previous layer has set sufficiently (darkening the surface first before drying). Time lapse between successive layers should be around 4-5 hours in 20 degrees, increasing as the temperature drops. For the application of the varnish primer and the final top varnish, we use a special tool (kind of brush). This two-material top varnish technique **leaves the surface of POLART unaffected (relatively mat and not darker)**. Still, If you want you can apply **POLFLOOR PU 807** (shiny polyurethane varnish) as final coating in two layers (250-300gr/m² total consumption). **POLFLOOR PU 807** intensifies the POLART surface, making it a bit darker and glossy.

If the POLART mixture has started setting it cannot be used or re-diluted with water.

Application time tolerance decreases with the increase of temperature.

CONSUMPTION

Approx. 1,8 kg/m² /mm.

APPLICATION TOOLS

Flat metal trowel. Tools should be cleaned with **WATER** immediately after use.

PACKAGING

Supplied in drums of 15 kg.

STORAGE

1 year in original unopened containers in dry places with minimum temperature 5°C and maximum temperature 35°C, protected from moisture and heat.

REMARKS

- Working time of **POLART** decreases when ambient temperature rises.
 - Do not mix or apply unless surface, air and material temperatures are over 12°C during the next 24 hours.
 - Prolonged storage of partially used containers must be avoided as contact with atmospheric moisture will result in skinning and clouding of the product.
 - Do not apply to floors if there is moisture in the subfloor drive or hydrostatic pressure. Prior precautions measurements of humidity with special device are suggested.
 - In case old floors are going to be re-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 grinded prior to application of a new layer.
 - **POLART FLOOR** will yellow upon prolonged exposure to sunlight or high-intensity artificial lights. A urethane topcoat is highly recommended for color stability.
 - After hardening, **POLART** is completely safe for health.
-

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.

ACRYLIC STAINS

ACRYLIC-BASED CHEMICAL STAIN FOR CONCRETE

GENERAL CHARACTERISTICS

KDF ACRYLIC STAIN is a penetrating, acrylic-based stain used to color old or new concrete. **KDF ACRYLIC STAIN** provides a translucent, permanent color with a shaded marbled effect, similar to the aged appearance of natural stone. **KDF ACRYLIC STAIN's** rich variegated finish will not peel, crack, chip, or fade from UV light. **KDF ACRYLIC STAIN** can also be used over concrete overlays and over stamped concrete floorings.

- Applied on integrally-colored concrete or over color-hardened concrete.
- Provides variegated appearances and long-lasting durability that will not peel or chip.
- Can be applied horizontally.
- Can be easily cleaned and maintained.

Available in 9 colors with two shades each.

TECHNICAL DATA

Basis:	Acrylic resin
Appearance:	liquid
Viscosity:	20-100 mPa•s at 25°C
Bulk Density:	± 0,003 kg/l
Adhesive strength:	>3 N/mm ² (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 30 days
Moisture content:	below 4%

PREPARATION-APPLICATION

Ideal for stamped concrete or microtopping POLART floor or over KNOCK DOWN floorings, residential or commercial applications, hotels, entryways, restaurant floors, showrooms, patios, pool decks, basements or garage floors, large commercial projects, driveways, sidewalks.

Caution must be taken so that temperature of the substrate as well as ambient air remains above 12°C during application and curing of the materials while relative environment humidity

does not exceed 75%.

PREPARATION

For best results, concrete must cure for a minimum of 30 days. Concrete should be clean and free of curing compounds, sealers, paints, coating and other bond breakers. Old paint or coatings must be removed mechanically. Oil, grease, and dirt must be removed, rinsed or pressure washed thoroughly, and the surface allowed to dry completely. Concrete must be etched, because a profiled porous surface is required. So it is strongly recommended the usage of special chemical cleaning with the parallel wash out with water under pressure. When the surface is completely dry follows the application. Ambient and substrate temperature must be between 12°C to 35°C. Avoid application during rainy, foggy, or very humid weather when water condensation forms on the surface.

MIXING

Always stir stain well before use and during application to prevent settling and poor dispersion of colorant. A variable speed drill and a paddle mixer is the preferred method for mixing.

APPLICATION

A small test area is recommended to ensure suitability for application, desired appearance and the absorption of the surface.

Apply **KDF ACRYLIC STAIN** to the concrete surface using a pump sprayer. Depending on surface porosity, a brush may be used to assure the stain penetrates into the concrete. Avoid any puddling. Allow the stain to dry for eight hours, and apply a second coat if needed for a particular appearance.

SEAL

The final surface must always be protected by **PU VARNISH 807** or by PU, UV resistant top coating.

CONSUMPTION

0,2-0,3 kg/m².

APPLICATION TOOLS

Airless spray, brush.

STORAGE

One year in unopened containers in dry places with minimum temperature 5°C and maximum temperature 35°C, protected from moisture and heat.

CAUTION

- Use only in areas with adequate ventilation.
- Prolonged storage of partially used containers containing **ELASTOPOL PU 883** must be avoided as contact with atmospheric moisture will result in skinning and clouding of the product.
- Certain **ACRYLIC-STAIN** colors should only be used for interior applications.

- Stained concrete must be protected from any source of water or excessive moisture. Material will not freeze in storage but should be allowed to rise to 10 °C or more before use.
- Excessive build-up of STAIN SEALER or puddling of the product during application can lead to bubbling and discoloration.
- Do not mix or apply unless surface, air and material temperatures are over 12°C during the next 24 hours or if rain is expected within 12 hours after application.
- Do not apply to floors if there is moisture in the subfloor drive or hydrostatic pressure. Prior precautions measurements of humidity with special device are suggested.
- Application in hot direct sunlight or when concrete and/or air temperatures are 35 °C and above must be avoid otherwise bubbling might occur.
- Not resistant to gasoline or other automotive fluids.
- Do not thin this product.

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.

POLFLOOR-PU 807

GENERAL CHARACTERISTICS

POLFLOOR-PU 807 is polyurethane-based, anti-dust, transparent or colored, two-component resin.

- Creates colored, easy-to-clean indoor or outdoor floorings.
- Ideal for old and new surfaces, for light and middle circulation such as industrial, troweled floorings, mosaics, cement surfaces, workshops, and storehouses. Suitable even for metallic surfaces and for painting swimming pools.
- Provides permanent protection from U.V. radiation.
- Eliminates dust and decay from old & new floorings, reinforcing their durability.
- Offers high mechanical resistance and chemical protection against acid, alkalis, oil, and grease.
- Penetrates in depth, protects and hardens old absorbent cement surfaces.
- It can be easily repaired locally if necessary.

TECHNICAL DATA

Basis:	two-component polyurethane resin
Appearance:	liquid
Viscosity:	100-450 mPa•s at 25°C
Density:	0,94 ± 0,001 kg/l
Mixing proportion (A:B):	75:25 by weight
Final strength:	after 7 days at 25°C
Walkability:	after 2 days at 25°C
Adhesive strength:	>3 N/mm ² (breaking of concrete)
Colors:	16 colors in RAL codes.
Temperature for the application and drying of the material:	12 – 35°C

SUBSTRATE REQUIREMENTS

Concrete quality:	at least C20/25
Age:	at least 30 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.

- Grinding of the surface with a mosaic machine, or sandblast and rotor machine in case of vertical surfaces.
- **Good, dry** cleaning of the surface from dust and residues with vacuum cleaner and squeegees.
- Caution must be taken so that temperature of the substrate as well as ambient air remains above 12°C during application and curing of the materials while relative environment humidity does not exceed 75%.
- 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 **POLFLOOR-PU 807**, with dilution with 10-15% **POLYURETHANE SOLVENT** for deeper penetration, in one layer.
- Then application of two or more layers with **POLFLOOR-PU 807** undiluted. The last layer is applied, until the surface is saturated and a film is created. If mat spots appear, then another layer is necessary until the surface is shiny. The next layer follows the other after the previous dries, within 6-12 hours depending on the ambient temperature and not more than 24 hours. The number of layers vary from one surface to another depending on the absorbency.

CONSUMPTION

250-600 gr/m², in three or more layers (including the primer layer) depending on the type, absorbency and roughness of the underlay.

APPLICATION TOOLS

Nappy rolls, brushes for smooth industrial surfaces. Tools should be cleaned with solvent immediately after use.

PACKAGING

Supplied in packages of 5kg and 15 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 35°C, protected from moisture and heat.

REMARKS

- Working time of **POLFLOOR-PU 807** decreases when ambient temperature rises.
- Prolonged storage of partially used containers must be avoided as contact with atmospheric moisture will result in skinning and clouding of the product.
- Do not mix or apply unless surface, air and material temperatures are over 12°C during the next 24 hours.
- Do not apply to floors if there is moisture in the subfloor drive or hydrostatic pressure. Prior precautions measurements of humidity with special device are suggested.
- It **cannot be applied in thickness for filling cracks or holes**.
- In case of cracks or holes we recommend the use of **EPOFIX-H 207**. The usage of rotor machine must precede the application of **POLFLOOR-PU 807** for the creation of pores and the right penetration.
- In case old floors are going to be laid or a long period of time interferes between successive layers, the surface must be thoroughly cleaned and grinded prior to application of a new layer.
- After hardening **POLFLOOR-PU 807** is completely safe for health.

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.