

# KDF

POLEPOX METALLIC  
INDOOR DECORATIVE FLOORING

[kdf.gr](http://kdf.gr)

**KDF LTD** ([www.kdf.gr](http://www.kdf.gr)) is one of the most dynamic and export-oriented Greek companies (currently activated in more than 60 countries in 4 continents), based in Greece( EU) and U.A.E too, with production facilities and warehouses in both countries for acrylic and polyurethane materials.

**We are experts in sports, industrial and decorative flooring products and systems**, with huge experience in Europe, Africa, Asia, Middle East and India as well.

Our export horizon is expanding rapidly and our goal is to stand out as a model of flexibility and competitiveness. The company, being one of the pioneer companies in the sector of sports flooring systems and building materials and giving particular attention to providing a fully upgraded range of products and services, provides certified systems by **ITF, IAAF, EU norms, LNE, LABOSPORT, ISASPORT, to name but a few.**

**Our systems are approved in many ministries like:**

- Ministry of Education in U.A.E
- Ministry of Education in K.S.A
- Ministry of Education in Oman
- Ministry of Education in Kuwait and many other institutes like
- Oman Royal Police
- Aramco, K.S.A
- Musanada in U.A.E
- Municipality of Doha
- Municipality of Dubai, Abu Dhabi, Sharjah and many others institutions.

KDF goes far beyond trade, providing consultancy in marketing and also technical support all the way, from the costing till the finalization of the project. Operating under the requirements of ISO 9001/2015 for production, trade and also application, we make sure our products are first applied successfully at site by our own people before we launch them abroad.

Therefore, our systems have all stood the real life test in different climates, from Middle East till Russia, and this is one of our main assets, enabling us to provide full and vertical technical support from specifying to final application plus supervision when required or even full application and costing.

**We invite you to discover a world of sports flooring expertise and solutions.**

**VIEW OUR INDUSTRIAL-DECORATIVE FLOORING CATALOGUE**

**VIEW OUR NEW SPORTS CATALOGUE**





# PHOTOGRAPH OF PROJECTS



## POLEPOX METALLIC

### Indoor Decorative Flooring

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Epoxy-based, unique, self-leveling, three-component decorative flooring with special metallic pigments to create a brilliant, vivid, one-of-a-kind floor. Can be customized to produce unique, metallic-look, light-reflective floors.

Recommended for commercial, business and recreational areas like conference halls, night clubs, hotels, restaurant, beach bars, shops, malls, show rooms, medical facilities, kitchen counters.

#### **Preparation – Application**

Applied only on dry, smooth concrete or other porous, stable surfaces like marble without arising humidity issues 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.

- Good, dry cleaning of the surface from dust and residues with vacuum cleaner and squeegees.
- Priming of the surface with **POLEPOX-PR 824**. Consumption: 250-600 gr/m<sup>2</sup> in two or more layers on industrial, troweled floorings, depending on the type and the absorbency of the underlay.
- After hardening of the primer (1-2 hours depending on the ambient temperature) and mixing the two components of **POLEPOX METALLIC**, pour the mixed epoxy on the floor using a flat metal trowel for the application of the mixture. Move the trowel in crescents (half-circles) to create the unique **POLEPOX METALLIC** patterns (or whatever else you might choose). Use the trowel gently and smoothly to apply the METALLIC mix. Because of the unique appearance of KDF **POLEPOX METALLIC**, the film thickness and finishing techniques will have an impact on the final appearance of the floor, with the most dramatic effects occurring when the pigments are allowed to migrate with the film. Other special effects can be created spritzing the surface, during the application, with denatured alcohol and using compressed air, squeegees and other methods.

- Finally, after **POLEPOX METALLIC** has dried apply the clear topcoat, **PLASTICOAT 850**, if using the denatured alcohol and compressed air.

## Substrate

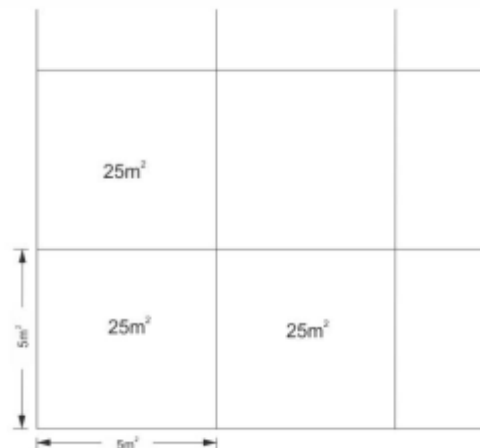
### Concrete Surface

**Concrete surface must be power-troweled without cracks and must be smooth with a slope of 0.7-1% and humidity under 4% in 10cm depth of concrete.**

Concrete must also be **dry at least for 40 days** and then the application takes place if there is no rising humidity for the sub-floor. Before the application takes place, there must be proper grinding of the surface by a grinding machine to open the pores accordingly and also a measurement by special instrument to measure humidity on the surface and in 10cm under the surface.

Generally concrete is a risky sub-floor and there may be problems with rising humidity, especially in areas where the sea level is really high and when the sea is close or in areas near greenery.

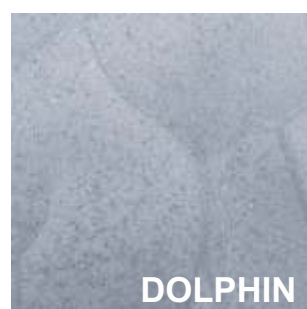
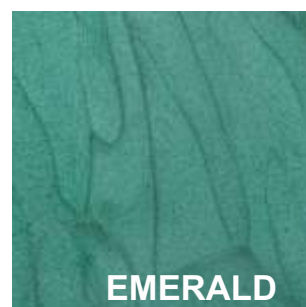
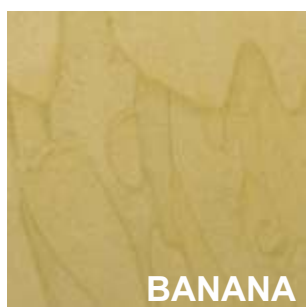
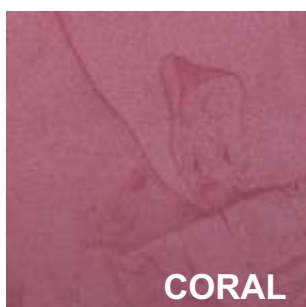
**Always make expansion joints in large areas of concrete, in order to avoid uncontrollable cracks and failures.** Joints should be every 25 square meters creating a grid of 5x5 meters or close to that.



## Substrate requirements

Concrete quality	at least C20/25
Age:	at least 40 days

# COLORCHART



The colors may vary slightly from the original due to digital representation.

# 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):	20-100 mPa•s at 25°C
Density (A+B):	0,95-1,05 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 <sup>2</sup> (breaking of concrete)
Temperature for the application and drying of the material:	14 – 38°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

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Good mixing of components A (resin) & B (hardener) packed into separate containers in fixed weight proportions.

- 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.
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#### CONSUMPTION

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

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#### APPLICATION TOOLS

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

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#### PACKAGING

Supplied in packages of 30 Kg (two drums). Components A and B 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 30°C, protected from moisture and heat.

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#### 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.
  - 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.
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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.

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

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# POLEPOX METALLIC

## GENERAL CHARACTERISTICS

**KDF POLEPOX METALLIC** is an indoor, epoxy-flooring system that can be customized to produce unique, metallic-look, light reflective floors. **POLEPOX METALLIC** pigments are colored blends of nanoparticle pigments that are pre-measured, with no limit for creating brilliant, vivid, one-of-a-kind floors.

## TECHNICAL DATA

Basis:	epoxy resin
Appearance:	viscous liquid
Viscosity:	3000-4500 mPa•s at 25°C
Bulk Density:	1,19-1,29Kg/lt
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 <sup>2</sup> (breaking of concrete)
Colors:	available in 13 colors

## SUBSTRATE REQUIREMENTS

Concrete quality:	at least C20/25
Age:	at least 30 days
Moisture content:	below 4%

## PREPARATION-APPLICATION

Ideal for restaurants, malls, lobbies, kitchens, cafeterias, retail or commercial floors, garages and service areas, showrooms and entryways, medical facilities, arcades.

**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.
- **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%.
- Priming of the surface with **POLEPOX-PR 824**. Consumption: 250-600 gr/m<sup>2</sup> in two or more layers on industrial, troweled floorings, depending on the type and the absorbency of the underlay.
- After hardening of the primer (1-2 hours depending on the ambient temperature) and mixing the two components of **POLEPOX METALLIC**, pour the mixed epoxy on the floor using a flat metal trowel for the application of the mixture. Move the trowel in crescents (half-circles) to create the unique **POLEPOX METALLIC** patterns (or whatever else you might choose). Use the trowel gently and smoothly to apply the METALLIC mix. Because of the unique appearance of KDF **POLEPOX METALLIC**, the film thickness and finishing techniques will

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have an impact on the final appearance of the floor, with the most special effects occurring when the pigments are allowed to migrate with the film. Other special effects can be created spritzing the surface, during the application, with denatured alcohol and using compressed air, squeegees and other methods.

- Finally, after **POLEPOX METALLIC** has dried apply the clear topcoat, **PLASTICOAT 850**, if using the denatured alcohol and compressed air as method of application of POLEPOX METALLIC to cover the anti-slip affect.

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#### CONSUMPTION

1,5 kg/m<sup>2</sup>.

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#### APPLICATION TOOLS

Flat metal trowel, special rollers and squeegee. Tools should be cleaned with solvent immediately after use.

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#### STORAGE

One year in unopened containers in dry places with minimum temperature 5°C and maximum temperature 30 °C, protected from moisture and heat.

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#### REMARKS

- Application equipment, method and temperature will have a significant effect on coverage rates.
- Prolonged storage of partially used containers must be avoided as contact with atmospheric moisture will result in skinning and clouding of the product.
- **KDF POLEPOX METALLIC** floors can create unique effects, but despite the fact that the application process is simple, some prior practice might be needed to develop the best application techniques.
- 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.
- **KDF POLEPOX METALLIC** will yellow upon prolonged exposure to sunlight or high-intensity artificial lights. A urethane topcoat is highly recommended for color stability.
- Although epoxy coatings are chemically resistant, the surface may stain after contact with some very aggressive chemicals.

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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.

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

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# PLASTICOAT 850

## GENERAL CHARACTERISTICS

**PLASTICOAT 850** is an epoxy-based, clear, two-component coating and it is used for sealing and plasticizing decorative floorings and for the creation of 3D floorings.

It is applied in thickness up to 3mm giving the ability to insert small thin objects like coins, colored granules, flakes, 3D images etc.

Creates clear, glossy, easy-to-clean flooring without joints, not requiring maintenance.

## TECHNICAL DATA

Basis:	two-component epoxy resin
Appearance:	liquid
Viscosity:	400-900 mPa•s at 25°C
Density:	0,98 – 1.08 kg/lit
Mixing proportion (A:B):	63:37 % by weight
Final strength:	after 7 days at 25°C
Walkability:	after 2 days at 25°C
Adhesive strength:	>3 N/mm <sup>2</sup> (breaking of concrete)
Colors:	clear
Temperature for the application and drying of the material:	15 – 40° C

## PREPARATION-APPLICATION

**Applied only on dry surfaces. Protected from rising 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.

Recommended for hotels, exhibitions, showrooms and generally in areas where high aesthetic is required.

- Caution must be taken so that temperature of the substrate as well as ambient air remains above 15° C during application and curing of the materials while relative environment humidity does not exceed 75%.
- For the creation of the desired pattern, on the epoxy layer such as POLEPOX METALLIC, DECOQUARTZ SMOOTH, POLEPOX DÉCOR, EPOXY DESIGN etc, follows placement of the decorative material.
- After hardening any loose material is being removed using a vacuum cleaner, and within 24 hours, follows the application of **EPOXY PLASTICOAT 850**.
- 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.

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- The epoxy mixture is poured on the floor and spread using notched trowel. The tool which is to be used depends on the desirable thickness.
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**CONSUMPTION**

1.0-1.3 kg/m<sup>2</sup> (when the material is applied with V-Notched trowel (3.5 mm))

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**APPLICATION  
TOOLS**

V-Notched trowel (3.5mm) or squeegees (depending on the application). Tools should be cleaned with solvent immediately after use.

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**PACKAGING**

Set of 13kg or barrels.

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**STORAGE**

One year in unopened containers in dry places with minimum temperature 5°C and maximum temperature 30°C, protected from moisture and heat (avoid sunlight).

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**REMARKS**

Prolonged storage of partially used containers must be avoided as contact with atmospheric moisture will result in skinning and clouding of the product.

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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.

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

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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.