

Technical Data Sheet

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® KERAPLAN EP 124

Two-component epoxy resin coating system with electrical conductivity

Product description

KERAPLAN EP 124 is an electrically conductive, seamless, self-leveling synthetic resin coating based on epoxy resin with mineral fillers. The coating is nonylphenol- and silicone-free. The film thickness ranges between approx. 1.6 – 1.8 mm and is electrically discharging in accordance with DIN EN ISO 1081.

Solvent-free in acc. with **ibh** – recommendation

Typical use

KERAPLAN EP 124 is recommended as a surface protection system for concrete and screed surfaces in a variety of applications, particularly in such cases where the surface and overall visual appearance must meet very exacting standards. This product is primarily applied as a floor coating in chemical processing plants, warehouses, production halls, workshops, power plants, food and beverage plants, data processing centers and/or super-clean rooms in the electronics industry, where a high degree of hardness and a derivation ability for electrostatic charges is required.

Properties

KERAPLAN EP 124 is a floor coating that is fit for traffic, can be exposed to mechanical loads and has a broad spectrum of chemical resistance properties. The coating hardens without shrinkage and may be applied without seams. KERAPLAN EP 124 is available in a broad range of colors. The surface is very easy to clean as a result of the dense, unstructured finish.

Chemical resistance

Information on the chemical resistance properties will be provided on request.

Substrate

All concrete structures must meet the requirements given in DIN EN 14879-1.

Substrate

If required, the concrete surface must be treated by means of blasting in such a way that it is free from cement slurries, cement skin, loose and brittle particles, defects and separating substances. The

residual moisture of the concrete surface should measure <4%.

Application

KERAPLAN EP 124 is composed of a two-component, aqueous, conductive Primer and a two-component, self-spreading, conductive Top Coat.

Conductive primer	Standard packing unit (kg)	Parts by weight
<u>KCH EW Primer 1</u>		
Component A	5	100
Component B	1.25	25
Water		25

Spread the material evenly over the substrate using a roller. Special care should be taken to avoid puddles/sagging and to ensure that all pores are filled (blistering). For very porous, old and highly absorbent substrates, two coating applications will be required.

Coverage: approx. 0.3 kg / m²
Coverage will depend on the temperature, absorbency and roughness of the substrate

Requirement: Resistance to earth $R_E < 10^4 \Omega$

Conductive coating	Standard packing unit (kg)	Parts by weight
<u>KERAPLAN EP 124 (Floor surfaces)</u>		
Component A	21.1	100
Component B	4	19

Spread KERAPLAN EP 124 evenly over the substrate using a steel smoothing tool, a notched smoothing trowel or a rake.

A film thickness in excess of 2 mm has a negative effect on the resistance to earth!

After approx. 10 min. roll the freshly applied coating crosswise with a spiked roller to eliminate air bubbles. For sloping and wall surfaces add the proper amount of KCH thixotropic agent 1 (2 - 5 weight %) to conform to the conditions on site and apply the compound with a trowel.

Coverage: 1.6 kg/m²/mm (compound)

Pot life

Temp.	Primer	KERAPLAN EP 124
15°C	approx. 35 minutes	approx. 80 minutes
20°C	approx. 25 minutes	approx. 60 minutes
30°C	approx. 15 minutes	approx. 45 minutes

Packing

The products are shipped in the following standard packing units:

KCH EW Primer 1 Comp. A	5 kg
KCH EW Primer 1	1.25 kg
KERAPLAN EP 124 Comp. A	21.1 kg
KERAPLAN EP 124 Comp. B	4 kg
KCH thixotropic agent 1	1 kg

Storage

The products shall be stored in a cool and dry place. With a storage temperature of 23°C the minimum shelf life is as follows:

KCH EW Primer 1 Comp. A	12 months
KCH EW Primer 1 Comp. B	12 months
KERAPLAN EP 124 Comp. A	12 months
KERAPLAN EP 124 Comp. B	12 months
KCH thixotropic agent 1	24 months

Higher temperatures will shorten the shelf life of these products. Keep packing units tightly sealed and reseal each time materials have been removed.

Safety

Adequate ventilation is to be provided while work is in progress. Forced ventilation is compulsory for all work carried out in pits and enclosed areas.

All vapors produced while work is in progress must be continuously suctioned off at floor or bottom level.

Only such amounts of material as required for the uninterrupted execution of the works are to be stored at the work place. All regulations relative to fire and explosion protection shall be complied with as required. Special care shall be taken to ensure that no amounts of the individual components and/or the mixed compounds are released into the drainage systems.

All regulations for the prevention of accidents stipulated by the employer's liability insurance association, the pertinent accident prevention regulations prescribed at the site of application and the TRGS 507 "Surface Treatment in Rooms and Tanks" as well as the safety precautions listed on the packages (label) pursuant to the provisions of the Hazardous Materials Ordinance shall be adhered to. The operating instructions as specified in § 14 GefStoffV (Hazardous Materials Ordinance) as well as the EC Safety Data Sheets are to be complied with.

Technical data	Test specification	Unit	Parameter
Density	DIN EN ISO 1183-1	g/cm ³	1.56
Compressive strength	DIN EN ISO 604	MPa	65
Tensile strength	DIN EN ISO 527	MPa	31
Elongation at break	DIN EN ISO 527	%	2.6
Flexural strength	DIN EN ISO 178	MPa	62
Modulus of elasticity (flexural test)	DIN EN ISO 178	MPa	3.700
Adhesive strength to concrete/screed ^{*)}	DIN EN ISO 4624	MPa	> inherent strength substrate
Hardness	DIN 53505	Shore D	80
Leakage resistance to earth	DIN EN ISO 1081	Ω	< 10 ⁶
Coefficient of linear thermal expansion	DIN 53752	K ⁻¹	70 · 10 ⁻⁶
Maximum service temperature		°C	80

^{*)} compressive strength 25 MPa

The technical data contained herein represents the current state of our product knowledge and is intended to furnish general information regarding our products and their application spectrum. In view of the diversity and multitude of application possibilities, this information should be regarded as a guideline only, which does not guarantee any specific properties and/or suitability of these products for each concrete case of application. Consequently, prior to placing an order for a product, we recommend that you provide us with the specific properties required for a particular application. Upon request, our technical service will immediately draw up a detailed property profile for that concrete application case.

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