PARKHAUS-Oberflächenschutzsystem KLB-SYSTEM EPOXID
EP 5570

Coloured, flexibilised 2-component epoxy resin top sealer for surface protection systems (OS8, OS 11a/b) in the interior in accordance with the DAfStb directive

Packaging units

Artikelnummer	Verpackung	Inhalt	VE/Palette
AK1338-12	Bucket combo	12.00 kg	30
AK1338-30	Hobbock combo	30.00 kg	12
AK1338-01	Drum combo	1200.00 kg	0,33

Product characteristics

Mixing ratio parts by weight	A : B = 5 : 1
Mixing ratio parts by volume	A : B = 100 : 32
Processing time	10 °C / 50 °F : 60 - 80 minutes 20 °C / 68 °F : 30 - 40 minutes 30 °C / 86 °F : 10 - 15 minutes
Processing temperature	Minimum 10 °C / 50 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F : 24 - 36 hrs. 20 °C / 68 °F : 14 - 18 hrs. 30 °C / 86 °F : 10 - 14 hrs.
Curing	2 - 3 days until mechanical load at 20 °C / 68 °F 7 days until chemical load at 20 °C / 68 °F
Further coatings	After 14 - 18 hours, but after 48 hours at the latest at 20 °C / 68 °F
Consumption	Approx. 0.5 - 0.8 kg/m²
Colours	KLB standard colours - see colour chart, other colours available upon request
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM EPOXID EP 5570 is a flexible, coloured 2-component epoxy resin top sealer for scattered coatings in indoor car parks and garages that are accessible to vehicles.

KLB-SYSTEM EPOXID 5570 is suitable for the application on scattered, flexibilised surface protection systems (OS8, OS 11a/b). The top sealer is prepared with low viscosity for good processability and demonstrates high opacity. Top sealing of sanded surfaces results in a slip-resistant and wear-resistant floor coating.

KLB SYSTEM EPOXID EP 5570 is a component of a complete car park system for surfaces which are subject to different requirements.

System components are:

- **KLB SYSTEM EPOXID EP 5520** “2-component epoxy resin primer”
- **KLB SYSTEM EPOXID EP 5530** “2-component epoxy resin primer”
- **KLB-SYSTEM POLYURETHAN PU 5550** “2-component polyurethane floating layer, flexible at low temperatures”

- **KLB-SYSTEM POLYURETHAN PU 5560** “2-component polyurethane wearing layer”
- **KLB-SYSTEM EPOXID EP 5570** “2-component epoxy resin top sealer, flexibilised”
- **KLB-SYSTEM POLYUREA PU 5580** “2-component polyurea sealer, colored, light and weather-resistant”
- **KLB-SYSTEM EPOXID EP 5590** “2-component epoxy resin wearing layer, flexibilised and permeable"

KLB-SYSTEM EPOXID EP 5570 has a very good plasticiser and chemical resistance, especially to petrol, anti-freezing agents, oil, battery acid, de-icing salt and other chemicals.

Alternatively, **KLB-SYSTEM POLYUREA PU 5580** can be used as a light-resistant top sealer variant for surface protection systems (OS 11a/b).

Area of application

- Flexibilised top sealer for OS8, OS 11a/b surface protection systems
- For indoor car parks, garages, etc.

Product features

- suitable for vehicle traffic
- flexibilised
- resistant to de-icing salt
- resistant to glycol, oil and battery acid
- Total Solid according to GISCODE (Test method "Deutsche Bauchemie")
- good plasticiser resistance
- resistant to abrasion and wear

Technical data

Viscosity - Component A+B	1,800	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	99	%	KLB method
Density - Component A+B	1.49	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Water absorption	< 0.2	% w/w	DIN 53495
Compressive strength	> 55	N/mm²	DIN EN 196/1
Shore-hardness D	80	-	DIN 53505 (after 7 days)
Abrasion (Taber Abraser)	approx. 60	mg	ASTM D4060 (CS10/1000)

The values established in tests are average values. Deviations from the product specification may occur.

Included in systems

- System K3 - KLB PARKING PU OS11b Indoor
- System K6 - KLB PARKING PU OS8 Flex
- System K7 - KLB PARKING EP OS8 Flex

Please visit our website to get more information about our KLB systems: www.klb-koetztal.com

Tests

- Test report (system test): Performance characteristics test for the use as a surface protection system/product following DIN EN 1504-2 “Products and systems for the protection and maintenance of concrete supporting structures, part 2: surface protection systems for concrete; German version EN 1504-2:2004”, in consideration of DIN V 18026, “Surface protection systems for concrete from products following DIN EN 1.5.2004-2” and in accordance with the DAfStb guidelines “Protection and maintenance of concrete components”

- Declaration of performance in accordance with Appendix III of (EU) Regulation n. 305/2011 (construction product regulation), for the single products
- Fire behaviour classification according to DIN EN 13501-01:2010-01: B_{fl}-s1
- Slip-resistance according to DIN 51130 and BGR 181 for OS 11a/b available in R11/V4 and R11/V6.
- Parking Abrasion Test (PAT): VK1

Build-up of coats

Surface protection system OS 11a

Coating with increased dynamic crack-bridging capability for surfaces that are accessible to foot and vehicle traffic as well as for open parking decks

- Prepare the substrate preferably through shot-blasting and thoroughly vacuum off.
- Prime with **EP 5520**, consumption approx. 0.3 - 0.4 kg/m². Open scattering with quartz sand, grain size 0.3/0.8 mm, consumption approx. 0.5 - 1.0 kg/m².
- Alternatively, **EP 5530** can be used as pre-filled primer, consumption approx. 0.3 - 0.6 kg/m². Open scattering with quartz sand, grain size 0.3/0.8 mm, consumption approx. 0.5 - 1.0 kg/m².
- Apply the floating coat **PU 5550** with the toothed scraper **Toothed blade RS4** or Pajarito 48, consumption approx. 2.0 - 2.2 kg/m².
- Roughness depth surcharge:

  Roughness depth surcharge 0.5 mm dz of > 0.7 kg/m²

  Roughness depth surcharge 1.0 mm dz of > 1.3 kg/m²

In accordance with the maintenance directive TR or RiLi SIB (DAfStb), corresponding layer thickness surcharges are required when there is roughness. The control of the layer thicknesses and, if necessary, the adjustment of the resulting consumption quantities must be carried out by the processor.

- Fill the **PU 5560** wearing layer with approx. 20% of quartz sand of grain size 0.1/0.3 mm and mix until homogeneous.
- Apply the **PU 5560** wearing layer using the toothed scraper **Toothed Blade RS4** or Pajarito 48, consumption of the mixture approx. 2.2 - 2.5 kg/m².
- Scatter the entire surface using quartz sand with a grain size of 0.3/0.8 mm, consumption approx. 4 - 6 kg/m². Remove excess sand after curing, brush off loose grains and thoroughly vacuum off the entire surface.
- For weather-exposed surfaces, the non-yellowing **PU 5580** top sealer, consumption approx. 0.5 - 0.8 kg/m², is applied using a foam rubber wiper and uniformly distributed in crosswise motion with a velour roller.
- Alternatively, the flexibilised **EP 5570** top sealer with a consumption of approx. 0.5 - 0.8 kg/m² can be applied.

Important notes:

- The RiLi SIB or maintenance directive TR require compliance with the layer thicknesses for attaining the certified properties, such as crack-bridging in class B 3.2 according to DIN EN 1062-7 at -20 °C/-4 °F.
- For OS 11a, a minimum layer thickness of 1.5 mm for the elastic surface protection (floating layer) and 3.0 mm plus the current roughness depth layer thickness surcharge dz for the wearing surface is required.
- Only the OS 11a system may be used on weather-exposed parking decks.
- Please observe the TR maintenance directive for further requirements.

Surface protection system OS 11b

Coating with increased dynamic crack-bridging capability for surfaces that are accessible to foot and vehicle traffic

- Prepare the substrate preferably through shot-blasting and thoroughly vacuum off.

- Prime with **EP 5520**, consumption approx. 0.3 - 0.4 kg/m². Open scattering with quartz sand, grain size 0.3/0.8 mm, consumption approx. 0.5 - 1.0 kg/m².
- Alternatively, **EP 5530** can be used as pre-filled primer, consumption approx. 0.3 - 0.6 kg/m². Open scattering with quartz sand, grain size 0.3/0.8 mm, consumption approx. 0.5 - 1.0 kg/m².
- Fill the floating/wearing coat **PU 5550** with approx. 30% of quartz sand with grain size 0.1/0.3 mm and mix until homogeneous.
- Apply the floating/wearing coat P**U 5550** with the toothed scraper **Toothed blade RS4** or Pajarito 48. Consumption of the mixture approx. 2.6 - 2.8 kg/m².
- Roughness depth surcharge:

  Roughness depth surcharge 0.5 mm dz of > 0.4 kg/m² plus 30 weight-% of quartz sand 0.1/0.3 mm

  Roughness depth surcharge 1.0 mm dz of > 0.8 kg/m² plus 30 weight-% of quartz sand 0.1/0.3 mm

In accordance with the maintenance directive TR or RiLi SIB (DAfStb), corresponding layer thickness surcharges are required when there is roughness. The control of the layer thicknesses and, if necessary, the adjustment of the resulting consumption quantities must be carried out by the processor.

- Scatter the entire surface using quartz sand with a grain size of 0.3/0.8 mm, consumption approx. 4 - 6 kg/m². Remove excess sand after curing, brush off loose grains and thoroughly vacuum off the entire surface.
- Apply the flexible top coat **EP 5570**, consumption approx. 0.5 - 0.8 kg/m², with a foam rubber wiper and evenly distribute in crosswise motion with a velour roller.
- Alternatively, **PU 5580** can be used as a non-yellowing top coat, consumption approx. 0.5 - 0.8 kg/m².

Important notes:

- The RiLi SIB or maintenance directive TR require compliance with the layer thicknesses for attaining the certified properties, such as crack-bridging in class B 3.2.
- For OS 11b, a minimum layer thickness of 4.0 mm plus the current roughness depth layer thickness surcharge dz is required.
- The OS 11b system is not allowed to be used on weather-exposed parking decks.
- Please observe the TR maintenance directive for further requirements.

Application of the coating on walls and plinths

- Prepare the substrate, e.g. by milling, grinding or blasting.
- Apply the **EP 5520** primer, consumption approx. 0.25 - 0.35 kg/m². In order to avoid the primer to run off, 0.5 - 2% of suspending agent **Stellmittel 5 FT** or **Stellmittel 3 Super** can be added.
- Alternatively, in case of larger pores and shrinkage cavities: smooth the surface with **EP 5520** while adding 3 - 5% of suspending agent **Stellmittel 5 FT** or **Stellmittel 3 Super** so that all pores are filled, consumption variable and depending on pore size.
- After hardening, sharply apply **PU 5550** while adding 1.5 - 2.0% of suspending agent **Stellmittel 5 FT** and 10 - 15 % of quartz sand **Quarzsand 0.3/0.8 mm.**
- Scatter the fresh coating entirely with quartz sand **Quarzsand 0.3/0.8 mm**, consumption approx. 1.5 - 2.5 kg/m².
- Apply **PU 5580** or **EP 5570** as top sealant while adding 0.5 - 1.0% of suspending agent **Stellmittel 5 FT** using a velours roller, consumption approx. 0.5 - 0.7 kg/m².

Substrate

The substrate to be sealed must be free from all kinds of soiling. The product is usually used on surfaces scattered with quartz sand. Excess quartz sand must be swept off, brushed off or vacuumed up so that no loose grains are left.

The following generally applies for coating systems:

The substrate to be coated must be even, dry, free of dust, sufficiently resistant to tension and compression as well as be free from weakly-bonded components or surfaces. Materials impairing adhesion such as grease, oil, and paint residues should be removed with suitable measures. Observe the information issued by the trade associations, e.g. the current version of the KH-0/U and KH-0/S BEB worksheets as well as the notes in the product information of the recommended primers **EP 5520** or **EP 5530**. The substrates to be coated should be prepared mechanically, preferably by shot blasting. The prepared area must be saturated, pore-free and primed carefully. If the substrate has not been primed to be pore-free, bubbles and pores can develop in the coating due to air rising from the substrate. In case of doubt, we recommend testing on a trial surface. The surface can be scattered with approx. 1.0 - 2.0 kg/m² of quartz sand 0.3/0.8 mm in order to improve adhesion.

Mixing

Combo-packaging will be supplied in the correctly measured mixing ratio. The package of Component A has sufficient volume for the entire packaging unit. Empty all of the hardener compound B into the resin package A. Blend with a slow speed mixer (200 - 400 r/pm) for at least 2 - 3 minutes until a homogeneous, streak-free compound forms. To prevent mixing errors, empty ("repot") the entire resin/ hardener mixture into a clean container and mix it once again briefly.

Processing

After the base coat of the scattered surface has cured, remove any excess sand from it by sweeping and vacuuming until no more quartz grains loosen.

The fresh mixture is applied in portions to the floor. Depending on the desired material quantity, the compound is then distributed with a smooth rubber scraper, foam rubber wiper, Kaup or steel scraper by evenly pulling it over the sanded surface. Ensure uniform application and avoid ponding. Rigid scrapers create smoother covering surfaces, while soft trowels create rougher surfaces. Slip resistance requirements must comply with the recommended consumption levels for the respective R class. Please seek advice if required.

To ensure an even distribution on the surface and to avoid balding and traces of build-up, the surface must be gone over with a velour roller after 10 - 20 minutes, depending on the temperature.

Floor and air temperature must not fall below 10 °C / 50 °F and humidity should not exceed 75 %. The difference in floor and room temperature must remain less than 3 °C / 3 K / 5,4 °F so as not to impede the curing process. If a dew-point situation arises, regular curing will not be possible with hardening problems and spotting to occur. Exposure to water should be avoided during the first 7 days. The specified curing times apply for 20 °C / 68 °F; temperatures below this require longer processing and curing times, while higher temperatures require shorter times. If working conditions are not complied with, the technical properties of the end product may deviate from those specified (surface and load-bearing capacity).

Special remarks:

High-rising components must be protected by applying the coating at a height of 15 - 50 cm away from the floor, depending on the frequency and risk of splashing. In order to do so, a concave or triangular coving with a minimum side length of 30 x 30 mm must be placed onto the wall or pedestals within a dense structure. The products to be used and the build-up proposal can be found in the section "Build-up of coats", subsection "Application on walls and pedestal areas".

Depending on the construction, we recommend carrying out maintenance visits twice a year, thus at least once a year at the beginning of winter as well as a repair works of possibly damaged areas.

Cleaning	To remove fresh contamination and to clean tools, use **VR 24** or **VR 33** immediately. Hardened material can only be removed mechanically. Separate cleaning and care recommendations are available for cleaning floors produced with KLB coatings and sealers.
Storage	Store in dry and frost-free conditions. Ideal storage temperature is between 10 - 20 °C / 50 - 68 °F. Bring to a suitable processing temperature before application. Tightly re-seal opened packages and use up the content as soon as possible.
Special remarks	The product is regulated by the German Ordinance on Hazardous Substances (GefStoffV), the German Ordinance on Industrial Safety and Health (BetrSichV), and transport regulations for hazardous goods. The necessary information is contained in the DIN Safety Data Sheet. Observe all identification information on the container label! GISCODE: RE30 **Kennzeichnung VOC-Gehalt:** (EG-Regulation 2004/42) Maximum Permissible Value 500 g/l (2010,II,j/lb): Ready-for-use product contains < 500 g/l VOC.

CE marking

CE
1119
KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen
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EP5570-V1-092018
DIN EN 1504-2:2004
Surface protection products-coating DIN EN 1504-2: ZA.1d,ZA.1f,ZA.1g

Abrasion resistance	complied with
CO_2 permeability	S_D > 50m
Water vapour permeability	Class III
Capillary water absorbtion and water permeability	< 0.1 kg/m²*h0.5
Resistance to increased chemical excavation	complied with
Impact resistance	Class I
Tear-test for adhesive strength evaluation	> 1.5 N/mm²
Fire behaviour	C_{fl}-s1
Compatibility to temperature Change	complied with
Crack bridging ability	B 3.2 (-20 °C)
Grip	Class III

CE
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EP5570-V1-092018
DIN EN 13813:2003-01
Synthetic resin screed mortar DIN EN 13813: SR-B2.0-AR0.5-IR11

Fire behaviour	C_{fl}-s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0.5
Adhesive tensile strength	B 2.0
Impact resistance	IR 11

Please consider the latest version of this product information on our website.

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