

KLB-SYSTEM EPOXID

EP 799 Ableitgrund



Electrically highly conductive, low-emission 2-component epoxy resin base coat for producing of electrically dissipative coatings for ESD, personal and explosion protection

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AK2719-50	Bucket combo	10.00 kg	30



Product characteristics

Mixing ratio parts by weight	A : B = 1 : 4
Mixing ratio parts by volume	A : B = 1 : 4.2
Processing time	15 °C / 59 °F : 75 min. 20 °C / 68 °F : 60 min. 30 °C / 86 °F : 35 min.
Processing temperature	Minimum 15 °C / 59 °F (room and floor temperature)
Curing time (accessibility)	15 °C / 59 °F : 22 - 28 hrs. 20 °C / 68 °F : 18 - 24 hrs. 30 °C / 86 °F : 14 - 18 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	0.100 - 0.140 kg/m ²
Colours	Black
Shelf life	6 months (originally sealed) – Protect from frost!

Product description

KLB-SYSTEM EPOXID EP 799 Ableitgrund is a product used in combination for electrically conductive coatings and floor coverings. **KLB-SYSTEM EPOXID EP 799 Ableitgrund** is suitable for use in ESD and explosion protection areas as well as for coatings in accordance with the Water Resources Act. The highly conductive base coat is used as an interlayer and applied on cured base or scratch coats with affixed copper bands. The highly diagonally conductance ensures a good charge balance of the overlying coating. Electrically dissipative RX coatings can be produced when **EP 799 Ableitgrund** is used in combination with **KLB-SYSTEM EPOXID EP 99 EL+**, mixed sand **KLB-Mischsand 3/1**, coloured sand **KLB-Colorsand-CQS 47xx AS** and **KLB-SYSTEM POLYURETHAN PU 484**.

KLB-SYSTEM EPOXID EP 799 Ableitgrund is certified according to "Indoor Air Comfort Gold" and meets the emission criteria for a sustainable construction certification according to DGNB, LEED or BREEAM. "Indoor Comfort Gold" fulfills the highest requirements in regards to the emission of volatile organic compounds and respects not only the German limits of AgBB or ABG, but also of the emissions regulations of many other European Countries.

KLB-SYSTEM EPOXID EP 799 Ableitgrund consists of an easy-to-process and economical 2-component epoxy resin emulsion which may be applied with a roller. Because of its composition, a good interlayer adhesion is achieved - without using solvents.

Area of application

- As conductive layer in combination with the dissipative coatings **EP 99 EL+**, **KLB-SYSTEM EPOXID EP 200 EL+**, **KLB-SYSTEM EPOXID EP 785 EL+**, **KLB-SYSTEM POLYURETHAN 413 EL+**, **KLB-SYSTEM EPOXID EP 285 EL+**, **KLB-SYSTEM EPOXID EP 233 EL+**.
- For electrically conductive, commercially used areas with medium mechanical load, e.g. production or storage areas in many economic sectors.
- For areas with ESD requirements in combination with the coatings **EP 211 ESD**, **EP 212 ESD** and **EP 236 ESD**.
- For areas in the sector of electronics or electrical engineering in combination with special sealants also for ESD areas.
- For areas with requirements to explosion protection to prevent electrostatic charging.
- Electrically conductive, commercially and industrially used surfaces with increased slip resistance with **EP 99 EL+**, **CQS-47-xx AS** and **PU 484** (conductive RX coatings), e.g. in production or storage facilities.
- Application of the recommended dissipative wearing layers such as **EP 99 EL+**, **EP 200 EL+**, **EP 202 EL+ (Clean)**, **EP 211 ESD**, **EP 212 ESD**, **EP 233 EL+**, **EP 236 ESD**, **EP 280 WHG**, **EP 285 EL+**, **EP 785 EL+** and **PU 413 EL+** - depending on the requirements. Please observe the respective product information or seek advice if necessary.

Product features

- high conductivity
- low-emission
- Total Solid according to GISCODE
- consistent to hydrolysis and saponification
- in combination also for ESD coverings
- free of deleterious substances against varnish
- very economical
- good processing properties
- building authority approval according to DIBt®

Technical data

Viscosity - Component A+B	1200	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 40	%	KLB method
Density - Component A+B	1.08	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Electrical resistance	< 10 ⁵	Ohm	DIN EN 61340-4-1 DIN IEC 61340-5-1/2

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

Included in systems

- System B2KLB PROTECT WHG CONDUCTIVE EP
- System F1KLB CONDUCTIVE EP EX Standard
- System F2KLB CONDUCTIVE EP ESD Standard
- System F3KLB CONDUCTIVE EP ESD Exclusive
- System F5KLB CONDUCTIVE EP EX SIC
- System F6KLB CONDUCTIVE LOW-VOC PU ESD Elastic
- System F8KLB CONDUCTIVE CLEAN EP EX
- System F9KLB CONDUCTIVE DIFFUSION LOW-VOC EP EX

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

Tests

External test certificates are available:

- Certified as low-emission according to Eurofins "Indoor Air Comfort Gold".
Compliant with AgBB for recreation rooms.

- DIBt®-certified according to WHG § 63.
- Classification of the fire behaviour in combination with **EP 202 EL+** or **EP 280 WHG** according to DIN EN 13501-01:2010-01: B_{fl}-s1.
- Slip-resistant scattered coating grade R11/V4 in combination with **EP 280 WHG** according to DIN 51130 and BGR 181.
- Product is compliant with DIN EN 13813: 2003-01.

Note:

Please ask for the tested system build-up!

Build-up of coats

- Apply a base and scratch coat for obtaining a level substrate.
- Glue **KLB-Kupferbänder** copper bands for discharge in an imagined grid-pattern in place into the room – every 6 - 8 m, up to 1 - 2 m. Earth connection by an electrician based on VDE regulations.
- Apply a cross-conductible coat with **EP 799 Ableitgrund**, consumption approx. 0.100 - 0.140 kg/m².
- Depending on the demand to the product and substrate, apply the conductive wear layer with **EP 99 EL+**, **EP 200 EL+**, **EP 785 EL+**, **PU 413 EL+**, **EP 280 WHG**, **EP 285 EL+**, **EP 233 EL+**, **EP 211 ESD**, **EP 212 ESD** and **EP 236 ESD**.

Substrate

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 most recent versions of BEB worksheets KH-0/U and KH-0/S as well as the notes provided in the product information for the recommended base coats, like **EP 50**, **EP 51 RAPID S**, and **EP 52 Spezialgrund**. The substrates to be coated should be prepared mechanically, preferably by shot blasting. The prepared area must be saturated, pore-free and primed carefully. It is often difficult to judge the necessary pore-free condition of substrates. It is therefore recommended that a scratch coat be applied to smooth the surface. The conductive coating must be applied in an even thickness, it is thus mandatory to prepare the substrate thoroughly - it should already be even after applying the scratch coat. Apply the conductive layer after affixing the copper bands within the recommended processing time of the base coat.

Mixing

Combo-packaging will be supplied in the correctly measured mixing ratio. The package of Component B has sufficient volume for the entire packaging unit. Empty all of component A into the hardener compound B. 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. To achieve an optimum consistency, water may be added, up to 10 % after mixing.

Processing

Apply the conductive layer on the surface with a roller immediately after mixing. Watch for an even consumption. Apply evenly thin and economical on the prepared substrate. To avoid soiling of the walls, it is recommended to apply the black conductive layer in a distance of 5 - 10 cm. Before applying the dissipative coating, observe a sufficient curing period of 12 - 24 hours. Floor and air temperature must not fall below 15 °C / 59 °F and humidity should not exceed 75 %. The difference in floor and room temperature must remain less than 3 °C / 3K / 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. 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 - also regarding conductivity.

Cleaning

To remove fresh contamination and to clean tools, use water immediately. Clean with thinner **VR 24** if necessary. Hardened material can only be removed mechanically.

Storage

Store in dry and at frost-free conditions. Ideal storage temperature is between 10 °C - 20 °C / 50 °F - 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!

Attributes for GISCODE: RE20

Indication of VOC-content:

(EG-Regulation 2004/42) Maximum Permissible Value 140 g/l (2010,II,j/wb): Ready-for-use product contains < 140 g/l VOC.

CE marking

	
KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen	
13	
EP799-V1-022013	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-NPD-NPD	
Fire behaviour	E _{fl} -s1
Emission of corrosive substances	SR
Wear resistance BCA	NPD
Adhesive tensile strength	B 1.5
Impact resistance	NPD

NPD = No Performance Determined

VOC content

The product complies with the high requirements to low VOC contents, as required for sustainable construction. Therefore, these values exceed by far the European Union directive 2004/42/EG (decopaint directive).

	Limit value	Actual content	
Decopaint Directive 2004/42/EG - Component A	< 140	0	g/l
Decopaint Directive 2004/42/EG - Component B	< 140	1,5	g/l
DGNB - Components A + B	< 3	0,12	%
Klima:aktiv - Components A + B	< 3	0,12	%
LEED - Components A + B	< 100	1,2	g/l
Minergie ECO ® - Components A + B	< 1(<2)	0,12	%

(According to the Decopaint directive, single components are used for calculation. In the sustainable building rating systems, the mixture of both components in the correct mixing ratio is the determining factor.)



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

All stated information is based on our experience and technical preparation. We guarantee the correct and proper quality of our products. We do not assume any responsibility for the work not carried out by us, since we have no influence on the processing or processing conditions. We recommend on-site trials to be conducted in individual cases. With the publication of this new KLB product information, all prior information loses validity. The latest version is available electronically on our website www.klb-koetzal.com. In addition, our "General Terms and Conditions" apply.