PARKHAUS-Oberflächenschutzsystem KLB-SYSTEM EPOXID
EP 5520

Universal 2-component epoxy resin primer for surface protectionsystems (OS 8, OS 11 a/b and OS 14) in accordance with DAfStb and TR maintenance directive

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AK1103-50	Bucket combo	10.00 kg	30
AK1103-30	Hobbock combo	30.00 kg	12
AK1103-01	Drum combo	588.00 kg	0,5

Product characteristics

Mixing ratio parts by weight	A : B = 100 : 47
Mixing ratio parts by volume	A : B = 100 : 51
Processing time	10 °C / 50 °F : 45 min. 20 °C / 68 °F : 30 min. 30 °C / 86 °F : 15 min.
Processing temperature	Minimum 10 °C / 50 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F : 16 - 20 hrs. 20 °C / 68 °F : 12 - 15 hrs. 30 °C / 86 °F : 8 - 12 hrs.
Curing	2 - 3 days until mechanical load at 20 °C / 68 °F 7 days until chemical load at 20 °C / 68 °F
Consumption	Primer: 0.3 - 0.4 kg/m² depending on the substrate's roughness Scratch coat: 0.4 - 0.6 kg/m² depending on the substrate's roughness whilst adding 50 - 80% of mixed sand KLB-Mischsand 2/1 if necessary
Packaging	Bucket combo 10 kg, Hobbock combo 30 kg, Drum combo 588 kg
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM EPOXID EP 5520 is a unfilled and universally applicable 2-component epoxy resin primer, which is used in the CAR PARK surface protection systems (OS 8, OS 11a/b and OS 14).

KLB-SYSTEM EPOXID EP 5520 can be used as a primer and scratch coat in new buildings and renovation. Due to its low viscosity and good wettability, the resin penetrates the substrate very well and thus provides a high-strength base for the subsequent surface protection system.

KLB-SYSTEM EPOXID EP 5520 is supplied as a ready-to-use and unfilled primer. For producing scratch coats, the resin is filled with approx. 50 - 80 % by weight of mixed sand **KLB-Mischsand 2/1**.

Area of application

- As a primer before applying **KLB-SYSTEM POLYURETHAN PU 5550** to install surface protection systems (OS 11a/b and OS 14).
- As a primer before applying **KLB-SYSTEM EPOXID EP 216** to install the surface protection system OS 8.

- As a scratch coat to even out roughness when mixed with **KLB-Mischsand 2/1**.

Product features

- Total Solid according to GISCODE (Test method "Deutsche Bauchemie")
- all-purpose use
- good interlayer adhesion
- very economical

Technical data

Viscosity - Component A+B	600	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 99	%	KLB method
Density - Component A+B	1.09	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Adhesive tensile strength	> 1.5	N/mm²	DIN EN 1542
Shore-hardness D	80	-	DIN 53505 (after 7 days)

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

Included in systems

- System K1 - KLB PARKING EP OS 8
- System K2 - KLB PARKING PU OS 11a
- System K3 - KLB PARKING PU OS 11b
- System K4 - KLB PARKING PU OS 14
- 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 test for the use as a surface protection system/product according to 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” and the TR maintenance directive.
- Statement of performance in accordance with Annex 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
- Suitability against backside moisture exposure according to the DAfStb guidelines or the TR maintenance directive.

Build-up of coats

Priming for surface protection systems OS 11 a/b and OS 14

- Prepare the substrate preferably using shot blasting, then vacuum thoroughly.
- Prime with **EP 5530.** Application is carried out using a trowel, rubber floor wiper, spatula or a nylon roller. Consumption approx. 0.3 - 0.4 kg/m². To achieve an evenly closed surface, re-roll with a nylon roller.
- 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 for the subsequent floating/wearing coat **PU 5550**.

- For the further application of the OS 11 a/b and OS 14 systems and for roughness levelling, please refer to the **PU 5550** and **PU 5560** product information.

Priming for surface protection system OS 8

- Prime using **EP 5520**, consumption approx. 0.3 - 0.4 kg/m².
- Alternatively, **EP 5530** can be used as pre-filled primer, consumption approx. 0.3 - 0.6 kg/m².
- Optional: open scattering with quartz sand, grain size 0.3/0.8 mm, consumption approx. 0.5 - 1.0 kg/m².
- For the further application of the OS 8 system with wearing layer and top sealer **EP 216 Universal**, please refer to the product information of **EP 216 Universal**.
- For the further application of the OS 8 system with wear coat **EP 5590** or **PU 5560** and top sealer **EP 5570,** please refer to the product information of the wearing layer.

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. Surfaces suitable for coating are concrete C30/37 (exposure class XD1) or C35/45 (exposure class XD3). The substrate has to have adequately high strength for the intended occupational use. The substrates to be coated should be prepared mechanically, preferably by shot blasting. The absorbency must be tested. The surface strength must then be at least 1,5 N/mm² (for OS 11a/b and OS 14) and 2.0 N/mm² (for OS 8). For concrete, moisture content must not exceed 4.5 CM-%, remaining residual humidity. The possibility of moisture ingress from the rear must be permanently excluded.

Observe the information issued by the DAfStb and TR maintenance directive as well as by the trade associations, e.g. the most recent versions of BEB worksheets KH-0/U and KH-0/S.

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 package of resin A. For drum deliveries, both components must be weighed in a clean container in the correct mixing ratio. 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.

Should **KLB-Mischsand 2/1** be added to produce a scratch coat, the binding agent must be premixed, only then is added the mixing sand. The amount to be added can be varied according to the desired consistency.

Processing

Primer:
The primer is applied with a rubber squeegee, trowel, spatula or nylon roller immediately after mixing. Apply the material to the substrate in an evenly distributed layer. Check consumption quantities. If the substrate is highly absorbent, a further priming or scratch coat is recommended to achieve a non-porous substrate, if necessary. Take requirements of the following coat into consideration, e.g. polyurethane coatings such as **PU 5550** should be scattered with fire-dried quartz sand with a grain size of 0.3/0.8 mm.

If roughness needs to be evened out, a scratch coat can be applied to smooth the substrate as well as to completely close the pores. The pre-mixed material is applied with a trowel, Kaupp or rubber squeegee.

The consistency must be adapted to the substrate absorbency and temperature and must be set so that the material flows smoothly.

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. 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.

Special remarks: we advise against the "resinification“ of screed/flat joints and break-outs in the screed or concrete with pure epoxy resin or set with suspending agent. For the application, always use the KLB primer resin in combination with quartz sand e.g. **KLB-Mischsand 1** or **KLB-Mischsand 2/1**. For this, we recommend adding at least 1 - 3 parts by weight of filler to 1 parts by weight of primer; if necessary, 0.2 - 2 % of suspending agent can be added to adjust the consistency. Intermediate grinding should be carried out to improve adhesion to subsequent coats.

Cleaning

To remove fresh impurities and for cleaning tools, use thinner **VR 24** or **VR 33** immediately after use. Hardened material can only be removed mechanically.

Storage

Store in dry and if possible, 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!

GISCODE: RE90

Indication of VOC-content:
(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 89335 Ichenhausen, GERMANY
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EP5520-V1-072023
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	w < 0,1 kg/m²*h0,5
Compatibility to temperature change	complied with
Resistance to impact	Class I
Tear-test for adhesive strength evaluation	≥ 2,0 (1,5) N/mm²
Fire behaviour	C_{fl}-s1
Grip	Class III

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

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