

KLB-SYSTEM EPOXID

EP 699 S

Solvent-free, thixotropic 2-component epoxy resin binding agent for producing cleanable, hygienic coatings on walls and ceiling

Packaging units



Article no.	Packaging	Content (kg)	Units/pallet
AK1076-50	Bucket combo	10.00	30
AK1076-25	Hobbock combo	25.00	12

Product characteristics

Mixing ratio parts by weight	A : B = 100 : 45
Mixing ratio parts by volume	A : B = 100 : 55
Processing time	10 °C / 50 °F : 70 min. 20 °C / 68 °F : 40 min. 30 °C / 86 °F : 25 min.
Processing temperature	Minimum 10 °C / 50 °F – Maximum 30 °C / 86 °F (room and wall temperature)
Curing time (accessibility)	10 °C / 50 °F : 24 - 36 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 18 - 24 hours, but after 48 hours at the latest at 20 °C / 68 °F
Consumption	Reinforcement: 1.1 - 1.3 kg/m ² for imbedding the reinforcement fleece with 2 work steps For each sealing layer: 0.4 - 0.6 kg/m ²
Layer thickness	Approx. 1.2 mm
Colours	KLB standard colours and approx. RAL 9010
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM EPOXID EP 699 S is a thixotropic adjusted, pigmented, 2-component epoxy resin for walls and ceilings, for commercially and industrially used areas.

KLB-SYSTEM EPOXID EP 699 S is used in combination with the reinforcement fleece **KLB-Armierungsvlies VA 125 x 300** for functional coatings on wall and ceiling. Especially suitable for areas with special demands to hygiene, cleanability, and mechanical, and/or chemical resistance. The fleece-reinforced coating for wall and ceiling is jointless and therefore a hygienic and economical alternative for conventional, ceramic wall coatings. Especially for processing and storage areas with special requirements to hygiene and cleanability, or frequent wet cleaning. Typical areas of use are e.g. bakeries, cheese dairy, butcher shops, breweries, beverage industry, and other areas in the food and pharmaceutical industry. Use in areas with special technical requirements. **KLB-SYSTEM POLYURETHAN PU 662** is suitable for decorative wall coatings.

The cured coating offers a textured surface and is resistant to impact or abrasion. The coating offers resistance to water and different chemicals. Also resistant to

current disinfectants, please adjust in all cases. Using a high-pressure cleaner is possible with the right method.

KLB-SYSTEM EPOXID EP 699 S is available in standard colours. Special colours are available upon request. Epoxy resin coatings are susceptible to slight colour deviations. This may be affected by chemicals as well. It is recommended to test the cleaning-suitability with pre-trials.

Area of application

Especially suitable for wall and ceiling applications in the food industry as well as other industrial areas where surfaces that can be cleaned and disinfected are required.

Typical commercial and industrial areas:

- Cheese dairies and creameries, milk industry and milk rooms in the agricultural sector.
- Breweries and beverages industry, storage rooms, partially with additional insulation.
- Butcheries, slaughterhouses, meat production industry.
- Kitchens, confectioneries, bakeries, baking facilities.
- General food processing industry.

Product features

- Total Solid according to GISCODE (Test method "Deutsche Bauchemie")
- thixotropic stable
- economical
- good cleanability
- chemically resistant
- jointless, hygienic surface
- pore-free structured
- robust
- capable for wet rooms

Technical data

Solid content	100	%	KLB method
Density - Component A+B	1.23	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Weight loss	0.3	weight-%	KLB method after 28 days
Water absorption	< 0.2	weight-%	DIN 53495
Shore-hardness D	62	-	DIN 53505 (after 7 days)

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

Included in systems

- **System N1 KLB INDUSTRIAL WALL EP**

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

Build-up of coats

Coating with different layers depending on the requirements:

- Mechanical preparation of the substrate by grinding. If necessary, use a cavity or pore trowelling with suitable cement fillers.

- Apply the primer with a velours roller. Use the recommended priming resins **EP 50**, **EP 51 RAPID S** or **EP 52 Spezialgrund**, consumption approx. 0.250 - 0.350 kg/m², dependent on the absorbency of the substrate.
- Openly sanding the fresh surface with quartz sand 0.3/0.8 mm, consumption approx. 0.5 - 1.0 kg/m².
- If pores are present, these must be closed by filling with **EP 699 S**, if necessary with the addition of thixotropic agent **Stellmittel 3 Super**.
- Cut the reinforcement fleece **KLB-Armierungsvlies VA 125 x 300** to the desired sheet length. The fleece has one cut and one fringed edge. The seams are overlapped by approx. 2 to 5 cm. The fringed edge is placed on top of the laid smooth edge. The seams are visible. By fraying the cut edge, a more even seam appearance can be achieved.
- Apply a base coat of **EP 699 S** to hold **KLB-Armierungsvlies VA 125 x 300** with a nylon plush roller, consumption approx. 0.500 - 0.650 kg/m².
- Insert the **KLB-Armierungsvlies VA 125 x 300** into the fresh resin and roll with a short-piled or velour roller until the fleece is completely saturated. Before the next work step, insert and roll the next path of fleece. Just like with the base coat, always work 1 - 2 length ahead.
- After the reinforcement fleece has been retained, apply **EP 699 S** "fresh-in-fresh" and evenly with the nylon plush roller. Consumption approx. 0.400 - 0.600 kg/m².
- To achieve a non-porous surface, a further sealing coat can be applied after the base coat has hardened. This is again done with **EP 699 S** using a nylon plush roller, consumption 0.400 - 0.600 kg/m².

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. Suitable substrates are concrete as well as waterproof cement plasters. The surface strength must then be at least 1,0 N/mm². Other substrates must be checked for suitability. The substrates must be sufficiently even and free of voids. In case of insufficient evenness, shrinkage cavities may become visible on the surface of the coating. Roughness depths and shrinkage cavities may have to be compensated for by applying additional layers of filler. The substrates to be coated should be prepared mechanically, preferably by shot-blasting. The prepared area must be saturated, pore-free and primed carefully. Recommended for priming are **EP 50**, **EP 52 RAPID** or **EP 52 Spezialgrund**. Observe the notes provided in the product information for the recommended KLB systems. In case of doubt, we recommend testing on a trial surface.

Mixing

Combo-packaging will be supplied in the correctly measured mixing ratio. The package of Component A has sufficient volume to contain the entire packaging unit. Empty all of the hardener compound B into the resin. Blend with a slow speed mixer (200 - 400 r/pm) for at least 2 - 3 minutes until a homogeneous, streak-free compound forms. Due to the pasty consistency, this must be done with special care. To ensure that the components are completely mixed, it is recommended to scrape the wall down to the bottom again with a stirring stick/spatula and mix again by machine. In case of partial removal, the individual components must be stirred up and weighed out in the mixing ratio.

Processing

Process the material immediately after mixing with a nylon plush roller by pulling out an even layer on the prepared substrate. The **KLB-Armierungsvlies VA 125 x 300** has already been tailored previously. The fleece has one cut and one fringed edge. The seams are overlapped by approx. 2 to 5 cm. The fringed edge is placed on top of the laid smooth edge. The sheets must be rolled carefully, especially at the seam. Make sure that all bubbles are removed. This is the only way to produce a hygienic covering. Once the fleece has been applied without bubbles, another layer of resin is

applied with the roller. This must be done in an even manner and carefully, without producing pores. If the surface is to be particularly even and pore-free, a further sealing layer with **EP 699 S** must be applied after the fleece layer has hardened. The application of the supple, stable material initially requires some practice, which is why test areas are recommended. To work seamlessly, always work "fresh-in-fresh" and define work areas before starting.

Floor and air temperature must not fall below 10 °C / 50 °F and humidity must 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 drying will not be possible with hardening problems and spotting to occur. Exposure to water and chemicals should be avoided during the first 7 days.

The specified hardening times apply for 20 °C / 68 °F; temperatures below this require longer processing and curing times, while higher temperatures require shorter times. During curing, the recommended conditions must be ensured. If working conditions are not complied with, deviations in the described properties may occur in the end product.

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

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.



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.
