KLB-SYSTEM
PU-BETON 4080 Kopfsiegel

Pigmented 3-component polyurethane top sealer

Packaging units

Article no.	Packaging	Inhalt	Units/pallet
AK6322-67	Combo packaging	7.60 kg	30

Product characteristics

Mixing ratio parts by weight	A : B : C = 100 : 100 : 180
Processing time	15 °C / 59 °F : 20 min. 20 °C / 68 °F : 15 min. 25 °C / 77 °F : 10 min.
Processing temperature	Minimum 15 °C / 59 °F – Maximum 25 °C / 77 °F (room and floor temperature)
Curing time (accessibility)	15 °C / 59 °F : 20 - 30 hrs. 20 °C / 68 °F : 16 - 24 hrs. 25 °C / 77 °F : 12 - 18 hrs.
Curing	1 - 2 days until mechanical load at 20 °C / 68 °F 2 days until chemical load at 20 °C / 68 °F
Consumption	0.650 - 0.900 kg/m²
Colours	Beige, red, green, grey
Shelf life	12 months – **Protect from frost!**

Product description

KLB-SYSTEM PU-BETON 4080 Kopfsiegel is a solvent-free, pigmented 3-component polyurethane top sealer for a final coating of surfaces based on **KLB-SYSTEM PU-BETON 4006/4009** and for sealing sockets or covings based on **KLB-SYSTEM PU-BETON 4012 Standfest**.

KLB-SYSTEM PU-BETON 4080 Kopfsiegel is generally used on fully scattered coatings based on **KLB-SYSTEM PU-BETON 4006** or **KLB-SYSTEM PU-BETON 4009** for slip-resistant, nonporous surfaces. The mixed product is applied with a rubber coating knife on the sand bed. Distribute evenly with a velours roller in crosswise motion.

KLB-SYSTEM PU-BETON 4080 Kopfsiegel consists of reactive components and a mineral component, which are carefully aligned and result in a slightly textured, matt, nonporous surface. The coating is resistant to abrasion and offers good resistance to many chemicals, especially to aqueous saline solutions, different acids and bases, as well as to solvents. After complete curing, the chemical resistance of **KLB-SYSTEM PU-BETON 4080 Kopfsiegel** equals the other **KLB PU-BETON** systems.

Alternatively, **KLB-SYSTEM PU-BETON 4080 Clean Kopfsiegel** is a 3-component polyurethane sealer designed to offer preventive protection against bacterial contamination. This assists the production of permanently hygienic surfaces, even between the necessary cleaning and disinfection cycles.

Note: the processing information and the technical data of **KLB-SYSTEM PU-BETON 4080 Clean Kopfsiegel** do not differ from the standard product.

Depending on the colour, slight changes in colour shade may occur. However, this will not affect the technical properties of the material. **KLB-SYSTEM PU-BETON** coatings are functional and their optical appearance may not always be consistent. Differences in colouring, gloss, shoulders, and fastening grooves may become visible, especially on smooth coatings (R9).

Area of application

- As system top sealer for **PU-BETON** coating systems, like **PU-BETON 4006** or **PU-BETON 4009**.
- As slip-resistant scattered coating, especially suitable for wet areas with increased demands on the resistance to temperature and chemicals, e.g. dairies, slaughterhouses, breweries, and other areas in the food processing industry.
- As top sealer on sockets made with **PU-BETON 4012 Standfest**.
- Suitable for creating dissipative coatings, e.g. for EX protection when used in combination with silicium carbide and **EP 799 Ableitgrund**.

Product features

- resistant to abrasion and wear
- resistant to hot water
- solvent-free
- coloured surface
- especially for slip-resistant coatings
- high chemical resistance
- resistant to permanent moisture
- available in several colours
- matt

Technical data

Solid content	> 99	%	KLB method
Density - Component A+B+C	1.53	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Weight loss	< 2.0	weight-%	after 28 days
Water absorption	< 0.2	weight-%	DIN 53495
Gloss level	< 10 (85°)	-	DIN 67530

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

Included in systems

- System I2 KLB TECH PU-BETON RX
- System I1 KLB TECH PU-BETON Standard

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

Tests

External test certificates are available:

- Classification of the fire behaviour in combination with **PU-BETON** coatings, according to DIN EN 13501-01:2010-01: B_{fl}-s1.
- Suitable for use in foodstuffs according to § 31 para. 1, German Food and Feed Code (German law LFGB).
- Slip-resistance grade R10 possible, according to DIN 51130 and BGR 181.

- Bacteriostatic activity according to ISO 22196:2011-08 and JIS 2801:2000.
- Within the system with verification of applicability as industrial kitchen flooring.
- Product is compliant with DIN EN 13813: 2003-01.

Note:

Please ask for the tested system build-up!

Build-up of coats

Coating based on **PU-BETON 4006/4009** with slip resistance grade R11/12/13

- Saturated base coat with primer **PU-BETON 4050 Grundierung,** consumption approx. 0.4 - 0.5 kg/m².
- Use the specially stable **PU-BETON 4012 Standfest** for triangular or concave covings. For a side length or radius of 5 cm: consumption approx. 2.2 - 2.8 kg per running meter. Also suitable for filling larger holes or local separations.
- If necessary: larger uneven areas may be filled respectively levelled with **PU-BETON 4006.** If required, scatter with fire-dried quartz sand 0.7/1.2 mm.
- Apply **PU-BETON 4006** with a pin screed scraper in layers of approx. 6 mm or **PU-BETON 4009** in layers of approx. 9 mm. Vent with a spiked roller.
- Scatter completely with fire-dried quartz sand of the grain size 0.3/0.8 mm or 0.7/1.2 mm. After curing, sweep off and vacuum thoroughly until no more sand is released.
- Apply **PU-BETON 4080 Kopfsiegel** with a rubber squeegee and roll with a velour roller in crosswise motion. Consumption approx. 0.650 - 0.900 kg/m². Work fast and seamless. **It is mandatory to stay within the recommended consumption for the slip resistance grade.**

Conductive coating with **PU 4080** and silicium carbide

- Saturated base coat with primer **PU-BETON 4050 Grundierung**, consumption approx. 0.4 - 0.5 kg/m².
- Use the specially stable **PU-BETON 4012 Standfest** for triangular or concave covings. For a side length or radius of 5 cm: consumption approx. 2.2 - 2.8 kg per running meter. Also suitable for filling larger holes or local separations.
- If necessary: larger uneven areas may be filled respectively levelled with **PU-BETON 4006.** If required, scatter with fire-dried quartz sand 0.7/1.2 mm.
- Apply **PU-BETON 4006** with a pin screed scraper in layers of approx. 6 mm or **PU-BETON 4009** in layers of approx. 9 mm. Vent with a spiked roller.
- 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.
- Fill **PU-BETON 4080 Kopfsiegel** with 20 % of quartz sand 0,3/0,8 mm, apply with the smoothing trowel and re-roll with a velours roller in crosswise motion, consumption approx. 1.0 - 1.2 kg/m² (mixture).
- Scatter completely with silicium carbide of an appropriate grain size depending on the required slip-resistance grade (0,2/0,5 mm, 0,3/0,8 mm or 0,7/1,2 mm), consumption approx. 4 - 5 kg/m².
- After curing, sweep off the excess and vacuum thoroughly until no more silicium carbide is being released.
- Apply **PU-BETON 4080 Kopfsiegel** with a rubber squeegee and roll with a velours roller in crosswise motion. Consumption approx. 0.700 - 0.900 kg/m². Work fast and seamless.
- It is mandatory to adhere to the consumption quantities for obtaining the required degree of slip-resistance.

Substrate

The substrate to be coated must be even, non-slip, sufficiently resistant to tension and compression, clean as well as be free from weakly-bonded components or impurities. Materials impairing adhesion such as grease, oil and paint residues

should be removed with suitable measures. The substrates must have a sufficiently high strength for the intended use as well as for the coating. Suitable substrates are concrete with a minimum quality of C25/30 according to DIN EN 206, cement screed and polymer-modified cement screeds with at least CT-C30-F5 bonded in a layer thickness of 60 or 30 mm, according to DIN 18560 part 3. Screeds as separating layer or insulation, polymer-modified, CT-C40-F5 at least, with a layer thickness > 65 mm, according to DIN 18560 part 4. Other substrates are not or not generally suitable. The substrates to be coated must be prepared mechanically, preferably by shot-blasting. The surface strength must then be at least 1.5 N/mm². For anchoring the coating, anchoring grooves are to be provided at the end edges, passages, etc. These should be approx. 6 to 10 mm deep and wide. For concrete, the moisture content must not exceed 6 CM-%. The possibility of moisture ingress from the rear must be permanently excluded. 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 KLB base coat **PU-BETON 4050 Grundierung**. On areas with increased thermal exposure, it is recommended to only use **PU-BETON 4050 Grundierung**. 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. Subsequently, apply **PU-BETON 4006, PU-BETON 4009** or **PU-BETON 4011 Grip** in an appropriate layer thickness. **PU-BETON 4080 Kopfsiegel** is usually suitable for substrates that have been completely scattered with quartz sand. Surfaces must be free of excess sand and must not be dirty before applying the top sealer. Wear clean shoes or overshoes when working on sanded areas.

Product components

PU-BETON 4080 Kopfsiegel consists of the following components:

1 packaging unit **PU 4080** Component A: 2.00 kg
1 packaging unit **PU 4080** Component B: 2.00 kg
1 packaging unit **PU 4080** Component C: 3.60 kg

Total quantity: 7.6 kg

Mixing

Combo-packaging will be supplied in the correctly measured mixing ratio. Only in the present mixture of the three components can the described processing and material properties be achieved.

At first, stir component A briefly, then empty all of component C into the container with component A. Blend with a slow speed mixer (200 - 400 r/pm) for at least 1 minute until a homogeneous, streak-free compound forms. Immediately add component B to the premixed material and homogenise for another 1 minute. Repot and mix again briefly.

Note: pay attention to consistent mixing times. Process complete packaging units only! Inaccurate mixing ratios will lead to useless results as the described technical properties may not be achieved. In this case, process the complete mixture immediately.

The temperature of the components should have 15 - 20 °C / 59 - 68 °F during mixing. Due to the relatively short processing time of the material, mixing must be carried out quickly but thoroughly. Therefore, doubling the mixing quantity is not recommended.

Processing

Process the material immediately after mixing and spread it over the prepared surface. Excess sand must have been removed. Apply the mixed material in portions and distribute it onto the prepared substrate with a foamed rubber slider or a rubber

coating knife. Ensure an even distribution. Re-roll with a velours roller after a short time delay. When sealing smooth, not scattered surfaces, apply the material with a rubber coating knife and pull off over the grain. Re-roll with a textured roller afterwards. Always work “fresh-in-fresh” to avoid any shoulders and divide working areas before starting, if necessary with adhesive tape, for a clean connecting field.

Floor and air temperature must not fall below 15 °C / 59 °F and humidity should be between 40 - 85 %. The difference in floor and room temperature must remain less than 3 °C / 3 K / 5.4 °F so that curing will not be disturbed. If a dew-point situation arises, regular curing and adhesion may be disrupted with spotting to occur. The specified hardening times apply for 20 °C / 68 °F. Lower temperature may increase; higher temperature may decrease the curing and processing times. If working conditions are not complied with, the end product's technical properties may deviate from the description.

Cleaning

To remove fresh contamination and to clean tools and equipment, use **VR 28** 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 15 - 20 °C / 59 - 68 °F. Bring to a suitable processing temperature before application. Process complete units only!

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: PU40

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

CE

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PU4080/PU4080Clean-V3-072015

DIN EN 13813:2003-01

Synthetic resin screed mortar
DIN EN 13813: SR-B1.5-AR0.5-IR20

Fire behaviour	B_{fl}-s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0.5
Adhesive tensile strength	B 1.5
Impact resistance	IR 20

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