KLB-SYSTEM
PU-BETON 4050 Grundierung

3-component PU-BETON base coat used within the system as primer

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AK6320-63	Combi unit	5.60	30

Product characteristics

Mixing ratio parts by weight	A : B : C = 100 : 122 : 89
Processing time	15 °C / 59 °F : 15 min. 20 °C / 68 °F : 10 min. 25 °C / 77 °F : 8 min.
Processing temperature	Minimum 15 °C / 59 °F – Maximum 25 °C / 77 °F (room and floor temperature)
Curing time (accessibility)	15 °C / 59 °F : 10 - 12 hrs. 20 °C / 68 °F : 6 - 10 hrs. 25 °C / 77 °F : 6 - 8 hrs.
Curing	1 - 2 days for mechanical load at 20 °C / 68 °F 2 days for chemical resistance at 20 °C / 68 °F
Further coatings	After curing, but not longer than 48 hours at 20 °C / 68 °F
Consumption	0.4 - 0.5 kg/m^2
Colours	Natural
Shelf life	12 months (originally sealed) – **Protect from frost!**

Product description

KLB-SYSTEM PU-BETON 4050 Grundierung is a solvent-free 3-component system base coat for high-quality PU-BETON coatings. In combination with **KLB-SYSTEM PU-BETON 4009** and **KLB-SYSTEM PUBETON 4006,** highly durable floors can be achieved for wet areas exposed to hot water and chemicals.

The material cures by chemical cross-linking, comparable to the PU-BETON materials, to a robust, well adhesive base for subsequent coatings. Absorbency is reduced and a coatable surface is produced by closing the pores.

Depending on the temperature, subsequent coatings may be applied within 6 - 12 hours, but not longer than after 48 hours. Due to the adjusted system, PU-BETON materials have comparatively short processing times, which require a well-organised workflow. Within the system, the coatings are physiologically harmless after curing. They offer a very good resistance to many chemicals, especially to aqueous saline solutions, acids and bases, as well as to many different solvents.

Area of application

- As system base coat for mortar coatings based on **KLB-SYSTEM PU-BETON 4006**, **KLB-SYSTEM PU-BETON 4009**, **KLB-SYSTEM PU-BETON 4011 Grip**,

as well as for skirtings and covings with **KLB-SYSTEM PU-BETON 4012 Standfest**.
- Especially for wet areas with increased demands to the temperature and chemical resistance, like dairy farms, butcheries, breweries, and other areas in the food processing industry.

Product features

- ready to use
- good adhesion
- solvent-free
- convenient processing
- resistant to water and chemicals
- PU-Beton system component

Technical data

Solid content	> 98	%	KLB method
Density - Component A+B+C	1.30	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Adhesive tensile strength	> 1.5	N/mm²	DIN EN 1542
Shore-hardness D	76	-	DIN 53505 (after 7 days)

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

Included in systems

- System I1 KLB TECH PU-BETON Standard
- System I2 KLB TECH PU-BETON RX
- System I3 KLB TECH PU-BETON Grip

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 within the system according to DIN EN 13501-01:2010-01: B_{fl}-s1.
- Slip resistant scattered covering in grade R11, R12 V6, R13 V4, R13 V6 possible, according to DIN 51130 and BGR 181.
- Slip resistance grade R9 possible within the system, in combination with PU-BETON 4080 Kopfsiegel possible in R10, according to DIN 51130 and BGR 181.
- Suitable for use in foodstuffs according to § 31 para. 1, German Food and Feed Code (german law LFGB).
- 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 4045** or **PU-BETON 4006**. If required, scatter with fire-dried quartz sand 0.7/1.2 mm.
- Apply **PU-BETON 4006** with a spiked coating knife 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.

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. Suitable substrates are concrete C25/30 or cement screed CT-C30-F5-V60 bonded. Other substrates are not or not generally suitable. If necessary, ask for a consultation. The substrates must have a sufficiently high strength for the intended use. 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 base coat **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.

Product components

PU-BETON 4050 Grundierung consists of the following components:

1 packaging unit **PU 4050** Component A: 1.8 kg
1 packaging unit **PU 4050** Component B: 2.2 kg
1 packaging unit **PU 4050** Component C: 1.6 kg

Total quantity: 5.6 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

Distribute the mortar mixture onto the prepared substrate in portions right after mixing and pull off evenly with a foam rubber squeegee. Subsequently, vent with a velours roller in a homogeneous manner. Ensure an even application and avoid puddle formation in particular. Divide up work areas before starting and always work “fresh-in-fresh” to avoid any shoulders. The surface 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. On walls or vertical surfaces, the primer must be mixed with approx. 2% of suspending agent.

Floor and air temperature must not fall below 15 °C / 59 °F and humidity should be at 40 to 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 cross-linking may be disrupted with hardening problems and spotting to occur. Exposure to water and chemicals should be avoided within the first 24 hours. 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 technical properties of the end product 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 at frost-free conditions. Ideal storage temperature is between 15 - 20 °C / 59 - 68 °F. Bring to a suitable working 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
KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen
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PU4050-V1-022013
DIN EN 13813:2003-01
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR4

Fire behaviour	E_{fl}-s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0.5
Adhesive tensile strength	B 1.5
Impact resistance	IR 4

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