KLB KÖTZTAL
Lacke + Beschichtungen GmbH

KLB-SYSTEM POLYURETHAN
PU 426

Low-emission, flexible 2-component polyurethane coating and sealing

Packaging units



Article no.	Packaging	Content (kg)	Units/pallet
AK6066-50	Bucket combo	10.00	30
AK6066-30	Hobbock combo	30.00	12

Product characteristics

Mixing ratio parts by weight	A : B = 6 : 1
Mixing ratio parts by volume	A : B = 100 : 20
Processing time	10 °C / 50 °F : 45 min. 20 °C / 68 °F : 30 min. 30 °C / 86 °F : 20 min.
Processing temperature	Minimum 10 °C / 50 °F – Maximum 30 °C / 86 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F : 36 - 48 hrs. 20 °C / 68 °F : 24 - 28 hrs. 30 °C / 86 °F : 12 - 14 hrs.
Curing	2 - 3 days for mechanical load at 20 °C / 68 °F 7 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	Approx. 1.45 kg/m² for each mm of layer
Layer thickness	Starting at 1.0 mm, usually 1.5 - 2.0 mm
Addition of quartz sand	Not recommended - loss of flexibility
Colours	KLB-Standard Colours – see chart. Other colours upon request!
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM POLYURETHAN PU 426 is a self-levelling, solvent-free 2-component polyurethane coating and sealer. The product is suitable as flexible interlayer underneath coatings. Especially suitable for kitchen areas and as a crack-bridging sealing layer underneath reactive resin coatings (decorative coatings) in interior and exterior areas. **KLB-SYSTEM POLYURETHAN PU 426** has a "General test certificate from the building authorities for waterproofing materials to be applied in liquid form in combination with tile and slab coverings (AIV)".

KLB-SYSTEM POLYURETHAN PU 426 is certified according to the “Indoor Air Comfort Gold” and meets the requirements for a sustainable construction certification according to DGNB (Germany), LEED (United States) or BREEAM (Great Britain). “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 POLYURETHAN PU 426 is suitable for use as a floor coating with subsequent opaque and colour-stable top sealer in areas with low loads. The covering is not intended for industrial use.

The coating has good flow and smoothing properties and cures with almost no shrinkage. The cured surface is hard and tough, but also highly flexible.

KLB-SYSTEM POLYURETHAN PU 426 also offers particular advantages where more flexibility is required due to the substrate. This can be the case with weak substrates that are susceptible to deformation, such as mastic asphalt, chipboard, metal and renovation surfaces.

The resistance to chemicals like water, saline solutions, mineral oil, diluted alkalis and acids is sufficient. Limited resistance to concentrated chemicals, like acids, bases, and many more. Low resistance to solvents.

Note: **KLB-SYSTEM POLYURETHAN PU 426** can be supplied in various colour shades, but is not resistant to yellowing due to its chemical structure. Slight colour deviations of the coating are possible for technical reasons. Please note our indicitions on colour / colour tones. Pale colours may additionally be sealed with the colour stable **KLB-SYSTEM POLYURETHAN PU 806 E**. Indentions cannot be excluded for concentrated point load.

Area of application

- As flexible interlayer (floating layer underneath reactive resin coatings).
- As flexible sealing coat in combination with subsequent coatings on balconies and patios.
- As sealing interlayer underneath scattered coatings, e.g. in kitchen areas.
- As flexible wear layer for areas with little mechanical load.
- On substrate susceptible to deformation like mastic asphalt, metallic, wooden, mixed substrate, and substrate that is susceptible to cracks.

Product features

- very good levelling
- elastic and deformable
- consistent to hydrolysis and saponification
- ready to use
- for renovations
- free of deleterious substances against varnish
- tested, low-emission quality

Technical data

Viscosity - Component A+B	2500	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	100	%	KLB method
Density - Component A+B	1.42	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Water absorption	< 0.2	weight-%	DIN 53495
Breaking strain	66	%	DIN EN ISO 527-3
Shore-hardness A	87	-	DIN 53505 (after 7 days)
Abrasion (Taber Abraser)	27	mg	ASTM D4060 (CS10/1000)

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

Included in systems

- System G4 KLB INDUSTRIAL LOW-VOC PU Elastic Sealed

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

---

Tests

External test certificates are available:

- Sealing in combination with tile and panel coverings.
- Certified as low-emission according to „Eurofins Indoor Air Comfort Gold“. Compliant with AgBB and DIBt®-accredited for recreation rooms.
- Chair castor test according to DIN EN 425:2002-08

Note:

Please ask for the tested system build-up!

Build-up of coats

Preparation of mineral substrates

- Prepare the substrate like concrete, cement screed, etc. mechanically, preferably by shot-blasting.

Low-emission usable surface **with intermediate sanding**

- Prime with the low-emissionKLB primers **EP 57, EP 58** or **EP 53 Spezialgrund AgBB.** Consumption approx. 0.3 - 0.4 kg/m².
- If required: apply a scratch coat with **EP 57, EP 58** or **EP 53 Spezialgrund AgBB** and mixed sand **KLB-Mischsand 2/1.** Mixing ratio 1 : 0.8 parts by weight, consumption approx. 0.8 - 1.2 kg/m² (mixture).
- Openly sanding the fresh surface with quartz sand 0.3/0.8 mm, consumption approx. 0.5 - 1.0 kg/m².
- Alternatively, a scratch coat with **PU 426** or **PU 421** can be applied onto the sanded primer by adding approx. 20 - 30 % of quartz sand 0.1/0.3 mm, consumption approx. 0.8 - 1.0 kg/m².
- Apply **PU 426**, e.g. with a toothed trowel **Toothed Blade RS4** or Pajarito 48, consumption approx. 2.3 - 2.6 kg/m². After 10 to 20 minutes, roll out with a spiked roller.

Substrate preparation of mastic asphalt

- Prepare the substrate mechanically, preferably by shot-blasting.
- This is followed directly by the application of a scratch coat with **PU 426** and approx. 20 - 30 % of quartz sand 0.1/0.3 mm, consumption approx. 0.8 - 1.0 kg/m². The surface must be pore-less for any subsequent coating.
- Apply **PU 426**, e.g. with a toothed trowel **Toothed Blade RS4** or Pajarito 48, consumption 2.3 - 2.6 kg/m². After 10 to 20 minutes, roll out with a spiked roller.

Decorative top sealing

- For decorative floors, apply an opaque top sealer with **PU 806 E,** consumption approx. 0.140 - 0.180 kg/m². By mixing with structuring agent **Strukturmittel RHX,** the slip resistance can be adjusted up to grade R11.

System structure as sealing layer **with intermediate sanding**

- Prime with the recommended epoxy resin primer **EP 52 Spezialgrund**. Consumption approx. 0.4 - 0.5 kg/m².
- Openly sanding the fresh surface with quartz sand 0.3/0.8 mm, consumption approx. 0.5 - 1.0 kg/m².

- This is followed directly by the application of the sealing layer with **PU 426** in two layers. Total consumption approx. 2.5 - 2.8 kg/m². The first coat is applied with 1.5 to 2.0 kg/m². The following layer with approx. 0.8 to 1.0 kg/m².
- If the material is changed to epoxy resin or other coverings except polyurethane resin, the surface of the second **PU 426** layer must be sanded with quartz sand 0.3/0.8 mm, consumption approx. 1 to 2 kg/m².
- After hardening, apply the covering layer of KLB epoxy or polyurethane resin, consumption at least 2 to 2.5 kg/m², followed by full sanding, consumption approx. 4 to 6 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. 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 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 57, EP 58** or **EP 53 Spezialgrund AgBB**. The substrates to be coated should be prepared mechanically. 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. The surface can be scattered openly with approx. 0.5 - 1.0 kg/m² of quartz sand 0.3/0.8 mm in order to improve adhesion.

Mastic asphalt: a scratch coat with **PU 426** or **PU 421** may be applied. Steel substrates must be primed using **EP 52 Spezialgrund** and scattered openly with quartz sand 0.3/0.8 mm. On chipboards, a base coat with **EP 50** or **EP 55** may be applied.

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. To prevent mixing errors, empty ("repot") the resin/hardener mixture into a clean container and mix it once again briefly. Partial quantities need to be weighed out in the right mixing ratio after having stirred up the single components.

Processing

Process the material immediately after mixing with a coating knife or notched trowel. Pull out an even layer on the prepared surface. The product is adjusted for optimum deaeration, however, rolling with a spiked roller is recommended to improve the wetting of the substrate, to optimise levelling and to remove remaining air bubbles. This should be carried out time-delayed after approx. 10 - 20 minutes. To work seamlessly, always work “fresh-in-fresh” and define work areas before starting. Do not scatter too early, the optimum time is at 20 °C / 68 °F after 15 - 30 minutes.

Floor and air temperature must not fall below 10 °C / 50 °F and humidity must not exceed 75 %. The material to be processed must have room temperature. Within the recommended processing conditions, the floor temperature may be a maximum of 3 °C / 3K / 5.4 °F colder than the ambient room air temperature in order to exclude a dew point on the surface to be coated and the fresh coating. If a dew-point situation arises, regular curing will not be possible with hardening poblems and foaming to occur. This may lead to technical property deviations.

Do not work in strong sunlight or on strongly heated surfaces, as the working time will be greatly reduced and bubble formation is possible. Polyurethane coatings are

sensitive to moisture when fresh, so the humidity specifications must be strictly observed.

The coating of dew-damp substrates and the use of damp sand as well as sweat lead to foaming of the material and must be avoided.

Exposure to water and chemicals must be avoided during the first 7 days. 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.

Cleaning

To remove fresh contamination and to clean tools, use thinner **VR 28** or **VR 33** immediately. Hardened material can only be removed mechanically.

Storage

Store in dry and at frost-free conditions. Ideal storage temperature is 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: PU40

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
KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen
13
PU426-V1-022013
DIN EN 13813:2003-01
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR19

Fire behaviour	C_{fl}-s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0.5
Adhesive tensile strength	B 1.5
Impact resistance	IR 19

CE
1119
KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen
13
PU426-V1-022013
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	SD > 50m
Water vapour permeability	Class III
Capillary water absorbtion and water permeability	< 0.1 kg/m²*h0.5
Resistance to increased chemical excavation	complied with
Resistance to impact	Class II
Tear-test for adhesive strength evaluation	> 1.5 N/mm²
Fire behaviour	C_{fl}-s1

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	< 500	27	g/l
Decopaint Directive 2004/42/EG - Component B	< 500	0	g/l
DGNB - Components A + B	< 3	1,2	%
Klima:aktiv - Components A + B	< 3	1,2	%
LEED - Components A + B	< 100	23	g/l

(According to the decopaint directive, single components are used for the calculation. For the quality rating systems for sustainable construction, 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. With appearance of this new KLB product information, all prior information loses validity. The updated version is available on our website www.klb-koetztal.com. In addition, our "General Terms and Conditions" apply.

KLB KÖTZTAL Lacke+Beschichtungen GmbH
Günztalstraße 25
89335 Ichenhausen, GERMANY
Phone +49 (0) 8223-96 92-0
Fax +49 (0) 8223-96 92-100
www.klb-koetztal.com
info@klb-koetztal.com