KLB KÖTZTAL
Lacke + Beschichtungen GmbH

KLB-SYSTEM POLYURETHAN
PU 430 Silent

Low-emission, elastic 2-component polyurethane intermediate layer for reducing subsonic noise and increasing the walking comfort

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AK6114-50	Bucket combo	10.00 kg	30
AK6114-30	Hobbock combo	24.00 kg	12

Product characteristics

Mixing ratio parts by weight	A : B = 3 : 1
Mixing ratio parts by volume	A : B = 100 : 23
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 : 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	Approx. 1.0 kg/m² for each mm of layer
Layer thickness	Standard 3.5 mm, possible between 3.0 - 5.0 mm
Packaging	Combo packaging 10 kg, Hobbock combo 24 kg
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM POLYURETHAN PU 430 Silent is a self-levelling, low-emission polyurethane flexible layer. It increases the walking comfort and clearly reduces the ambience and subsonic noise.

For comfort coatings, **KLB-SYSTEM POLYURETHAN PU 430 Silent** is exclusively used as an interlayer. The flexible layer may be combined with the decorative top coat **KLB-SYSTEM POLYURETHAN PU 425 Comfort** or with the light-stable polyurethane coating **KLB-SYSTEM POLYURETHAN PU 410**.

KLB-SYSTEM POLYURETHAN PU 430 Silent 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.

The floor covering combination creates a high-quality 5 to 7 mm thick floor covering with a soft bottom layer and a harder top layer, which significantly reduces room and impact noise and makes it possible to walk on it without damaging the joints. This

reduces the noise level both in the room and in adjacent parts of the building. This creates a pleasant room climate, even with heavy foot traffic. These high-quality flooring combinations are used in private and commercial areas with high demands on the floor covering, e.g. in recreation rooms, residential and commercial areas, practices, kindergartens, nursing and old people's homes, physiotherapy and occupational therapy practices, fitness and wellness areas, etc..

Depending on the top layer **KLB-SYSTEM POLYURETHAN PU 425 Comfort** or **KLB-SYSTEM POLYURETHAN PU 410,** sealing will be carried out with the pigmented **KLB-SYSTEM POLYURETHAN PU 806 E** or the non-pigmented sealer **KLB-SYSTEM POLYURETHAN PU 805 E**.

Coatings combined with **KLB-SYSTEM POLYURETHAN PU 430 Silent** may show deformation and indents with increased mechanical load. Indents may reverse when the load is being reliefed, even though they may stay visible.

Area of application

- As flexible interlayer for high-quality polyurethane coatings.
- Decreases ambience noise or impact sound and increases walking comfort.
- Low-emission for coatings in recreation rooms.
- High walking comfort for floors in commercially or privately used areas.
- Suitable for healthcare facilities, e.g. doctor's offices, retirement homes, therapy centres.
- Suitable for public facilities, e.g. offices, business premises, hotels, as well as schools, universities, kindergartens and others.

Product features

- self-levelling
- insulating impact sound
- gentle on the joints
- good walking comfort
- good resilience
- comfortable
- tested, low-emission quality

Technical data

Viscosity - Component A+B	Approx. 4100	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	100	%	KLB method
Density - Component A+B	0.99	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Elongation at break	50	%	DIN EN ISO 527-3
Shore-hardness A	68	-	DIN 53505 (after 28 days)
Shore-hardness D	20	-	DIN 53505 (after 28 days)

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

Included in systems

- System G8 - KLB DECOR LOW-VOC PU Comfort Silent
- System G9 - KLB DECOR LOW-VOC PU Silent Sealed

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

Tests

The following external test certificates are available:

- Classification of the fire behaviour in combination with **PU 425 Comfort** according to DIN EN 13501-01:2010-01: C_{fl}-s1.
- Reduction of subsonic noise in combination with **PU 410** or **PU 425 Comfort** according to DIN EN ISO 717-2: 9 db/11 db.
- Certified low-emission according to “Eurofins Indoor Air Comfort Gold”. Compliant with AgBB for recreation rooms.

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.

System build-up **without intermediate scattering**

- Prime with the recommended KLB priming resin **EP 50 or EP 51 RAPID S**, consumption approx. 0.3 - 0.4 kg/m².
- If required: apply a scratch coat with **EP 50, EP 51 RAPID S** and mixed sand **KLB-Mischsand 2/1**. Mixing ratio 1 : 0.8 parts by weight, consumption approx. 0.8 - 1.2 kg/m² (mixture).
- Alternatively, already after priming, a scratch coat with **PU 429** or **PU 421** can be applied without scattering by adding approx. 20 - 30 % of quartz sand 0.1/0.3 mm, consumption approx. 0.8 - 1.0 kg/m².

Important: it's only with the primer **EP 50**, that **PU 430 Comfort** can be applied directly without scattering after a curing time of at least 14 to max. 48 hours (at 20 °C / 68 °F). Using **EP 51 RAPID S**, the application of **PU 430 Comfort** can take place without scattering after at least 4 to max. 24 hours (at 20 °C / 68 °F), provided the surface is pore-free. In the case of other primers or changed time sequences, intermediate scattering must be carried out.

Low-emission system build-up **with intermediate scattering**

- Prime with the low-emission epoxy resin primers, e.g. **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 scattering 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 429**, **PU 421** or **PU 425 Comfort** 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.
- The surface must be pore-less for any subsequent coating.

Substrate preparation of mastic asphalt

- Prepare the substrate mechanically by shot-blasting.
- This is followed directly by the application of a scratch coat with **PU 421, PU 429** or **PU 425 Comfort** and 20% of quartz sand 0.1/0.3 mm.
- If the surface is pore-free, the subsequent coating can be applied directly.

Application of the flexible comfort coating

- Apply the flexible interlayer with **PU 430 Silent** in layers of 3 - 5 mm, consumption approx. 3 - 5 kg/m² using a pin screed scraper.
- After curing, apply the top-layer with either **PU 425 Comfort** in layers of 2 - 3 mm, consumption 2.8 - 3.2 kg/m², or with **PU 410**, consumption 2.6 - 3.0 kg/m² with a toothed trowel **Toothed Blade S2** or Pajarito 78.

- Apply the low-emission and pigmented top sealer **PU 806 E**, consumption 0.140 - 0.180 kg/m² or alternatively the light-stable coating **PU 410** with **PU 805 E**. Other sealers may be used in special cases.

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, preferably by shot-blasting. 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. To improve adhesion, scatter the surface completely with 0.5 - 1.0 kg/m² quartz sand, grain size 0.3/0.8 mm.

Mastic asphalt: After suitable substrate preparation, a scratch coat with **PU 429, PU 421** or **PU 425 Comfort** may be applied straight on top. Please ensure that the build-up is uniformly elastic or viscoplastic and not too thick. Before coating the quality grade has to be checked. Only quality grade IC 10 or IC 15 are suitable for coating. For indoor use only. No rolled asphalt!

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 squeegee or toothed 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 - 15 minutes. To work seamlessly, always work “fresh-in-fresh” and define work areas before starting.

When applying subsequent coatings, do not access the soft **PU 430 Silent** with spiked shoes. It is recommended to use shoes with an increased contact surface, e.g. studs.

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 problems and foaming to occur. Technical properties might deviate.

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.

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 a suitable thinner when fresh. **VR 28** is recommended. 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	
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PU430S-V2-062014	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR1-IR6	
Fire behaviour	C_{fl}-s1
Emission of corrosive substances	SR
Wear resistance to BCA	AR 1
Adhesive tensile strength	B 1.5
Impact resistance	IR 6

VOC content

The product complies with the high requirements to low VOC contents, as required for sustainable construction. Therefore, these values are well below the limits set by the European Union directive 2004/42/EG (Decopaint Directive).

	Limit value	Actual content	
Decopaint Directive 2004/42/EG - Component A	< 500	1,9	g/l
Decopaint Directive 2004/42/EG - Component B	< 500	0	g/l
DGNB - Components A + B	< 0,5	1.9	%
klima:aktiv – Components A + B	< 3	1.9	%
LEED - Components A + B	<100	19	g/l
Minergie ECO ® - Components A + B	<1(<2)	1.9	%

(According to the Decopaint directive, single components are used for calculation. In the sustainable building rating systems, 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.

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