



## KLB-SYSTEM POLYURETHAN PU 9030 Flex

Yellowing-resistant, low-emission 2-component polyurethane binding agent for interior and exterior areas

### Packaging units



Article no.	Packaging	Content (kg)	Units/pallet
AK6212-70	Bucket combo	5.00 kg	45
AK6212-50	Bucket combo	10.00 kg	30

### Product characteristics

Mixing ratio parts by weight	A : B = 1 : 1
Mixing ratio parts by volume	A : B = 100 : 95
Processing time	15 °C / 59 °F : 50 min. 20 °C / 68 °F : 35 min. 30 °C / 86 °F : 15 min.
Processing temperature	Minimum 15 °C / 59 °F (room and floor temperature)
Curing time (accessibility)	15 °C / 59 °F : 24 - 30 hrs. 20 °C / 68 °F : 18 - 24 hrs. 30 °C / 86 °F : 12 - 14 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 curing, but after 48 hours at the latest at 20 °C / 68 °F
Consumption	8 - 9 kg for each 100 kg of decorative pebble 0.140 - 0.170 kg/m <sup>2</sup> binding agent for each mm of layer
Layer thickness	6 - 12 (decorative quartz pebble coating) mm
Colours	Non-pigmented
Shelf life	12 months (originally sealed)

### Product description

**KLB-SYSTEM POLYURETHAN PU 9030 Flex** is a low-emission, flexible, light-stable and weather-resistant 2-component polyurethane binding agent.

**KLB-SYSTEM POLYURETHAN PU 9030 Flex** is suitable as a light-stable binding agent for decorative coatings made with coloured and natural sand, as well as for binding other granulates. Due to its high-quality adjustment and the low odour during application, **KLB-SYSTEM POLYURETHAN PU 9030 Flex** is especially suitable for interior areas when a non-yellowing binding agent is required. **KLB-SYSTEM POLYURETHAN PU 9030 Flex** is also suitable for exterior areas, as binding agent of decorative pebble coatings on balconies and patios.

For decorative pebble coatings, mix the binding agent with the dry additive according to the accurate mixing ratio. Due to the low adhesiveness of **KLB-SYSTEM POLYURETHAN PU 9030 Flex**, the mortar offers good application properties. Therefore, it is not necessary to clean the tools in between. Because of its flexible adjustment, the material is even suitable on substrates susceptible to deformation (like exterior concrete areas, laying tiles, mastic asphalt, and so on).

Slip-resistant coatings are principally recommended for weathered exterior areas. When coating balconies and patios, observe the details like connections, water drainage, declines and more.

The material offers sufficient resistance to chemicals like water, saline solutions, diluted acids and bases, mineral oil, and fuel.

**Note:** surfaces coated with **KLB-SYSTEM POLYURETHAN PU 9030 Flex** should not be used as parking areas for cars. **KLB-SYSTEM POLYURETHAN PU 9030 Flex** is not permanently resistant to tire imprints or abrasion.

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#### Area of application

- Binding agent for decorative pebble coatings and other granulate coatings.
- For colour-stable coatings with natural and coloured sand in interior areas.
- For exterior balconies and patios.

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#### Product features

- low-emission formulation
- odorless
- glossy
- viscoplastic
- colour-stable
- free of deleterious substances against varnish
- good processing properties
- suitable for renovations

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#### Technical data

Viscosity - Component A+B	2100	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	100	%	KLB method
Density - Component A+B	1.13	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Shore-hardness D	60	-	DIN 53505 (after 28 days)

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

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#### Tests

External test certificates are available:

- Classification of the fire behaviour according DIN EN 13501-01:2010-01: B<sub>fl</sub>-s1.

**Note:**

Please ask for the tested system build-up!

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#### Build-up of coats

##### Decorative pebble coating 3 - 4 mm

- Apply one of the recommended KLB base coats, like **EP 30**, **EP 50**, **EP 51 RAPID S**, **EP 52 Spezialgrund**, or **EP 52 RAPID**. Consumption approx. 0.3 - 0.4 kg/m<sup>2</sup>, depending on the substrate. Scatter with quartz sand 1 - 2 mm.
- For sealing purposes, apply a crack-bridging coat using **PU 426**.
- Apply, distribute, and compact the decorative mortar coat bound with **PU 9030 Flex**. Consumption: 2 kg mixture for each mm of layer. Resulting in approx. 12 - 24 kg of material depending on layer thickness and grain size of the coating.
- Apply a varnish coat if necessary to stabilize the surface. Use **PU 9010 Flex**, consumption approx. 0.200 - 0.250 kg/m<sup>2</sup>. The varnish is recommended after 18 hours at the earliest.

## 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. Under certain circumstances, **EP 52 Spezialgrund** can be applied on wetter substrates as well as on substrates that are not sufficiently dense. The suitability under the given conditions must be clarified. 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 50**, **EP 51 RAPID S** and **EP 52 Spezialgrund**. 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. To improve adhesion, scatter the surface completely with 0.5 - 1.0 kg/m<sup>2</sup> quartz sand, grain size 1 to 2 mm.

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## 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. Use a compulsory mixer for adding any additives. The binder is then poured into the sand/granules and mixed in with a compulsory mixer or a double agitator. Careful mixing must be ensured. The mixing times should always be the same to avoid colour change due to abrasion. The recommended mixing ratios must be adhered to, as accumulations of binder can lead to foaming.

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## Processing

Jointless application is possible when the working area is divided prior to application. Protect the area from strong insolation and rain/water. Apply only when the climate conditions are within the recommendations, even during curing.

Process the mortar immediately after mixing. Apply the material in small quantities on the substrate and spread evenly with a smoothing trowel in a uniform layer. Subsequently compact and smooth with pressure so that the individual stones lie compactly against each other.

**Keep within the recommended binding agent mixing ratio. Do not empty any excess binding agent onto the surface. Binding agent residues may lead to foaming. If necessary, add the residual binder to the next mixture or dispose of it.**

In-between cleaning of tools is unnecessary. Clean tools after a longer working period with little amounts of **VR 28**. Use the thinner only for cleaning tools. Do not apply or spray any thinner **VR 28** on the surface, otherwise this may lead to texture disturbances

A varnish layer to stabilize the surface is recommended for exterior areas using **PU 9010 Flex**, recommended consumption approx. 0.200 - 0.250 kg/m<sup>2</sup>. Apply after 18 hours at the earliest or at a later point of time as well as after years to renew the surface.

Floor and air temperature must not fall below 15 °C / 59 °F and humidity should not exceed 75 %. The floor temperature must be greater than 3 °C / 3 K / 5.4 °F above dew-point. If a dew-point situation arises, regular curing may be disrupted with hardening problems and staining (whitening) to occur. 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 should be avoided during the first 5 - 10 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.

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#### Cleaning

To clean tools, use **VR 28** or **VR 33** immediately. Hardened material can only be removed mechanically.

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#### Storage

Store in dry and frost-free conditions. Ideal storage temperature is between 10 - 20 °C / 50 - 68 °F. Bring to a suitable working temperature before application. Tightly re-seal opened containers and use the content as soon as possible. Material has a limited shelf life.

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#### 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: PU10

#### 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.

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#### Accessories

- Smoothing trowel - Art. no. WZ3095-02

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#### CE marking

	
KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 89335 Ichenhausen, GERMANY	
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PU9030-V1-122023	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B1,5-AR0,5-IR4	
Fire behaviour	E <sub>fl</sub> -s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0,5
Adhesive tensile strength	B 1,5
Impact resistance	IR 4

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	14	g/l
Decopaint Directive 2004/42/EG - Component B	< 500	0	g/l
DGNB - Components A + B	< 3	0.17	%
Klima:aktiv - Components A + B	< 3	0.17	%
LEED - Components A + B	< 100	2	g/l
Minergie ECO ® - Components A + B	< 1 (< 2)	0.17	%

(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.

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-koetztal.com](http://www.klb-koetztal.com). In addition, our "General Terms and Conditions" apply.