KLB-SYSTEM POLYURETHAN
PU 881

Pigmented 2-component polyurethane sealer for matt surfaces

Packaging units



Article no.	Packaging	Content (kg)	Units/pallet
AK6618-50	Bucket combo	10.00	30
AK6618-30	Hobbock combo	30.00	12

Product characteristics

Mixing ratio parts by weight	A : B = 5 : 1
Mixing ratio parts by volume	A : B = 100 : 18
Processing time	10 °C / 50 °F : 70 min. 20 °C / 68 °F : 60 min. 30 °C / 86 °F : 35 min.
Processing temperature	Minimum 10 °C / 50 °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 for mechanical load at 20 °C / 68 °F 7 days for chemical resistance at 20 °C / 68 °F
Further coatings	After curing, at the earliest after 18 - 24 hours, but not longer than 48 hours at 20 °C / 68 °F
Consumption	Approx. 0.120 - 0.180 kg/m² for each application
Layers	Usually 1 coat on fresh coatings
Layer thickness	for each wet application: 0.15 - 0.18 mm
Colours	Standard colours according to KLB colour chart, other colours available upon request!
Shelf life	12 month (originally sealed)

Product description

KLB-SYSTEM POLYURETHAN PU 881 is a solvent-based 2-component sealer forming matt surfaces. **KLB-SYSTEM POLYURETHAN PU 880** is transparent whereas **KLB-SYSTEM POLYURETHAN PU 881** is available as pigmented alternative in different colour tones. Both products contain solvents and are subject to the hazardous goods regulations.

The product is suitable for forming matt surfaces in commercially and industrially used areas. The sealer can be applied onto polyurethane and epoxy resin coatings - the time window for application must be observed. Ensure the suitability of the respective product combinations. In case of polyurethane coatings that are susceptible to yellowing, an opaque sealing layer should be applied with **KLB-SYSTEM POLYURETHAN PU 881.**

KLB-SYSTEM POLYURETHAN PU 881 is made from high-quality raw materials. The sealer is low in yellowing and thus mainly used in areas with decorative requirements. On industrial surfaces exposed to stresses from material handling

equipment, thin-layered sealers can be rubbed off by braking action, so it must be checked in each individual case if it makes sense to use the sealer.

The product offers resistance to diluted acids and alkalis or salt solutions as well as short-term exposure to solvents. Polyurethane sealing products do not have adequate resistance to tyres and long exposure may therefore leave an imprint (plasticiser migration). In such cases, epoxy resin sealers like **KLB-SYSTEM POLYURETHAN PU 705 E** are rather recommended.

Area of application

- **PU 881** is suitable as matt sealer on epoxy resin coatings in commercially and industrially used areas.
- Use as coloured matt sealer on polyurethane coatings, like **PU 420, PU 410**, etc.

Product features

- containing solvents
- coloured, matt surface
- uniform appearance
- very economical
- low-grade yellowing
- free of deleterious substances against varnish

Technical data

Viscosity - Component A+B	200 - 400	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 60	%	KLB method
Density - Component A+B	1.15	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Water absorption	< 0.2	weight-%	DIN 53495
Abrasion (Taber Abraser)	< 55	mg	ASTM D4060 (CS10/1000)
Gloss level	10 - 20 (85°)	-	DIN 67530

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

Suitable coatings

The following self-levelling coatings can be sealed with **PU 881**:

EP 200 VF, **EP 202**, **EP 213**, **EP 213 RAPID**, **EP 216 Universal**, **EP 216 RAPID**, **EP 220**, **PU 405**, **PU 410**, **PU 420**, **PU 421**, **PU 425 Comfort**.

With other coatings, adhesion must be tested. The adhesion can anyway be improved by grinding the surface.

Tests

External test certificates are available:

- Slip-resistance grade R9 possible according to DIN 51130 and BGR 181.
- Slip-resistance grade R11 in combination with **RHX 75** possible, according to DIN 51130 and BGR 181.

Note:

Please ask for the tested system build-up!

Build-up of coats

Single-coloured, smooth polyurethane coating

- Apply one of the recommended KLB base coats, like **EP 50** and sand openly with fire-dried quartz sand 0.3/0.8 mm.
- Apply a scratch coat using **EP 50** / **KLB-Mischsand 2/1**, mixing ratio 1 : 0.8 parts by weight.
- Apply a base layer using **PU 420** or **PU 421**.
- Apply the opaque **PU 881** sealer in the same colour tone in crosswise motion.

Substrate

The substrate to be coated must be dry and free from any dirt. The sealer is typically applied as the last layer when creating a floor covering. It is therefore necessary to ensure that the previous layer is not already soiled. The optimum time for sealing is reached when the previously applied epoxy resin layer has hardened to a sufficiently stable film, but is not yet cured completely. In standard systems, this is the case after 18 hours at the earliest and after 48 hours at the latest at 20 °C / 68 °F air and soil temperature. If sealers are applied later, a trial surface must be applied and tested to check that sufficient adhesion is achieved. Old, hardened layers may be subsequently sealed because of the good adhesion of the material. Required is an accurate cleaning and grinding of the entire surface. If old synthetic resin substrates are being sealed, it is necessary to check that sufficient adhesion is achieved. For a change in colour, apply at least 2 coats to achieve an even coverage.

Mixing

Combo-packaging will be supplied in the correctly measured mixing ratio. The package of Component A has sufficient volume for the entire packaging unit. Empty all of the hardener compound B and mix immediately. Blend with a slow speed mixer (200 - 400 r/pm) for at least 2 - 3 minutes until a homogeneous, streak-free compound forms. Partial quantities need to be weighed out in the right mixing ratio. To prevent mixing errors, empty ("repot") the entire resin/hardener mixture into a clean container and mix it once again briefly.

Processing time max. 60 minutes at 20 °C / 68 °F (see chart “Processing time”).
Note: end of pot life is not visible!

Processing

As with all reactive resin systems, processing should take place immediately after mixing using a lint-free and solvent-resistant velours sealing roller. Typically, work areas are divided up beforehand to avoid duplicate application and haphazard overlapping. Otherwise, an uneven surface appearance and streaking might appear. Solvent-based sealers should be applied at the recommended temperatures without direct sunlight or draughts.

For larger areas, it is recommended that 2 or more people carry out the application. One or more persons apply the material in one direction, while another person distributes the fresh sealing material in a crosswise motion (90° angle). Use a 50 cm wide roller on larger surfaces for the final re-rolling. The distribution roller should be saturated/wetted with material and only be used for distribution, never for application. For sealing, keep within a coordinated work rhythm – criss-cross rolling may not be carried out too late. On large areas, this should be done directly on the surface, wearing blunt nail or football shoes. Always work “fresh-in-fresh” and ensure optimum distribution of the material. Avoid ponding, otherwise fogging may occur.

Important: when using epoxy resin or polyurethane coatings, a sufficiently long curing time must be allowed before applying the sealer. At least 18 hours must be waited at room temperature. Longer waiting times are quite possible, but at a maximum of 48 hours. The use of **PU 881** can be recommended on the following epoxy resin coatings: **EP 99**, **EP 100 VS**, **EP 174**, **EP 175**, **EP 175 Spezial**, **EP**

200 VF, **EP 213**, **EP 220**. If unknown coatings are to be sealed, preliminary tests must be carried out to check adhesion.

Floor and air temperature must not fall below 10 °C / 50 °F and humidity should not exceed 75 %. The difference in floor and room temperature must remain less than 3 °C / 3 K / 5.4 °F so as not to impede the curing process. If a dew-point situation arises, regular curing and cross-linking will not be possible with hardening poblems and spotting to occur. Exposure to water should 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** immediately after use. 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 10 - 20 °C / 50 - 68 °F. Bring to a suitable processing temperature before application. Tightly re-seal opened packages and use up the contents as quickly as possible. Observe storage regulations for products containing solvents.

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: PU50

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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PU881-V1-022013
DIN EN 13813:2003-01
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR6

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 6

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