KLB KÖTZTAL
Lacke+Beschichtungen GmbH

KLB-SYSTEM POLYUREA
PU 475 Spezial

Light-resistant, transparent, rapid-setting 2-component polyurea resin for top sealing slip-resistant and scattered coloured sand coatings

Packaging units



Article no.	Packaging	Inhalt	Units/pallet
AK6123-50	Bucket combo	10.00 kg	30
AK6123-25	Hobbock combo	25.00 kg	12

Product characteristics

Mixing ratio parts by weight	A : B = 100 : 55
Mixing ratio parts by volume	A : B = 100 : 56
Processing time	10 °C / 50 °F : 12 - 18 minutes 20 °C / 68 °F : 10 - 12 minutes 30 °C / 86 °F : 7 - 9 minutes
Processing temperature	Minimum 10 °C / 59 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F : 10 - 12 hrs. 20 °C / 68 °F : 5 - 6 hrs. 30 °C / 86 °F : 3 - 4 hrs.
Curing	12 - 24 hours until mechanical load at 20 °C / 68 °F 12 - 24 hours until resistance to water at 20 °C / 68 °F 24 - 48 hours until chemical load at 20 °C / 68 °F
Further coatings	After curing, but after 24 - 28 hours at the latest at 20 °C / 68 °F
Consumption	Resination for scattered coatings: approx. 0.5 - 0.8 kg/m²
Colours	Non-pigmented
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM POLYUREA PU 475 Spezial is a high-quality, non-pigmented and solvent-free 2-component polyurea resin for transparent top sealing of decorative sand scattered coatings and mortars.

KLB-SYSTEM POLYUREA PU 475 Spezial is AgBB-compliant for recreation rooms as being particularly low-emission.

The 2-component product consists either of a medium-viscous, pale polyurea resin and a high-quality, non-pigmented hardener. The final product is rapid-setting, non-yellowing and results in optically appealing, even surfaces.

KLB-SYSTEM POLYUREA PU 475 Spezial is adjusted as transparent top sealer of coloured sand scattered coatings for slip-resistant wet areas like kitchens, abattoirs, butcheries or the food industry. In addition, for all coloured sand scattered coatings with special demands on consistent and non-yellowing surfaces.

KLB-SYSTEM POLYUREA PU 475 Spezial is suitable as pore sealer and levelling filler of decorative and terrazzo coatings in the commercial or industrial sector. Apply the pore sealer in repeated applications. May also be applied in one

layer of 1 to 2 mm. To improve the optical appearance of the surface, it is recommended to finish with a suitable matt sealer after pore closure.

The thoroughly mixed resin cures to a non-pigmented, hard and tough synthetic material in glossy appearing, accessible after only a short period of time. The resin is almost odourless during processing.

The polyurea resin is non-yellowing and thus especially suitable for pale coatings. **KLB-SYSTEM POLYUREA PU 475 Spezial** offers good resistance to chemicals and mechanical load. The surface is to a large extent resistant to wear and tear, hygienic, and very well cleanable. Chemically resistant to water, salt, grease, aqueous solutions, diluted acids and bases. A conditional resistance is given for solvents, concentrated acids and bases, as well as for oxidizing chemicals.

Area of application

- **PU 475 Spezial** is used as light-resistant top sealer for coloured, sand scattered coatings in wet areas with non-slip requirements.
- For areas in the food industry with special demands on the optical appearance.
- As pore-sealing filler for coloured, finely grained Terrazzo coatings. To be used in combination with the matt sealers **EP 705 E**, **PU 806 E**, **PU 880**, **EP 860**, and others.
- Due to its low yellowing**, PU 475 Special** is particularly suitable for light-coloured coverings.
- Suitable as non-yellowing top sealer for KLB RX coatings.

Product features

- rapid-setting
- suitable for wet areas
- good interlayer adhesion
- non-pigmented, glossy
- quickly accessible
- resistant to water and chemicals
- consistent to hydrolysis and saponification
- solvent-free
- light-stable for the most part

Technical data

Viscosity - Component A+B	Approx. 1200 - 1400	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 99,9	%	KLB method
Density - Component A+B	Approx. 1.07	kg/l	DIN EN ISO 2811-2 (23 °C / 73.4 °F)
Water absorption	< 0.2	weight-%	DIN 53495
Shore-hardness D	Ca. 65 - 70	-	DIN 53505 (after 7 days)
Abrasion (Taber Abraser)	Approx. 30	mg	ASTM D4060 (CS10/1000)

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

Tests

External test certificates are available:

- Slip-resistant scattered coating grade R11 V8, R12 V8 and R13 V8 according to DIN 51130 and BGR 181.

Note:

Please ask for the tested system build-up!

Build-up of coats

Note: an overcoating of the completely hardened surface is not possible.

Slip-resistant scattered coating in wet areas

- Prepare the substrate, e.g. preferably by shot blasting.
- Prime with the recommended KLB base coats, like **EP 50**, **EP 52 Spezialgrund**, or **EP 51 RAPID S**, consumption approx. 0.3 - 0.4 kg/m².
- Optional: depending on the roughness and demands of the substrate, apply a scratch coat, e.g. with **EP 50**, **EP 52 Spezialgrund**, or **EP 51 RAPID S**, and mixed sand **KLB-Mischsand 2/1**, mixing ratio 1.0 : 0.8 parts by weight, consumption approx. 0.8 - 1.2 kg/m².
- **Important note:** depending on the type of primer/scratch coat, the fresh coating is to be scattered openly with quartz sand, grain size 0.3/0.8 mm.
- Apply the primary layer with **EP 99**, **EP 213** in layers of approx. 1.5 - 2 mm. Afterwards, scatter completely with coloured sand, grain size 0.3/0.8 or 0.7/1.2 mm.
- Sweep off any excess sand after 24 hours, if necessary grind and vacuum. Apply the top sealer subsequently.
- Resinate the prepared surface with **PU 475 Spezial** using a rubber coating knife. Use a velours roller subsequently for the desired surface, respectively slip resistance. Consumption 0.5 - 1.0 kg/m², depending on the grain size and slip resistance grade. Adhere to the consumption quantities for obtaining the required degree of slip-resistance. For very smooth surfaces, resinate in 2 layers.
- Optional: depending on the desired requirements to the coating, choose a matt top sealer, e.g. **EP 860** for good chemical resistance. Consumption 0.150 - 0.180 kg/m². Apply with a velours roller, resistant to solvents, in a crosswise motion.

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. Observe the information issued by trade associations, e.g. the most recent versions of BEB worksheets KH-0/U, KH-0/S and KH-2 as well as the product information for the recommended KLB base coats, e.g. **EP 30**, **EP 50**, **EP 51 RAPID S** and **EP 52 Spezialgrund**. The substrates to be coated should be prepared mechanically, preferably by shot-blasting. The prepared surface has to be primed accurately and in a saturated and pore-free way. To improve adhesion, scatter the surface completely with approx. 0.5 - 1.0 kg/m² quartz sand 0.3/0.8 mm. If the material is used for resination of mortar surfaces or as top sealer for coloured sand scattered coatings, the surface must not be older than 48 hours - being clean and free from any contamination. On scattered coatings, the excess sand needs to be removed after approx. 12 - 24 hours (depending on the product used as base coat) by sweeping, chipping off, and vacuuming. For smoother coatings, grind slightly. This method requires accurate proceedings for the sand bed to not be soiled or irregularly grinded. Resination may be carried out after all loose sand has been vacuumed off thoroughly. It is very important that the area is not soiled or contaminated with any substances impairing adhesion. Surfaces should only be accessed by the coating personnel with clean, pale shoes and clean clothes.

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 package. 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 before mixing. To prevent mixing errors, empty ("repot") the entire resin/ hardener mixture into a clean container and mix it once again briefly.

Processing

Scattered coatings: apply the mixed material to the scattered, prepared area using a smooth, light-coloured rubber squeegee by skimming it uniformly over the surface, avoiding ponding. Then roll or spread it homogeneously with a lint-free nylon roller. The areas should be processed carefully with the roller to ensure the structure is uniform and pore-free. The quantity of application depends on the required slip resistance and the displacement volume. Precise information on the consumption volumes can be provided on request. The material can also be applied crosswise with a roller, which will create a rougher surface covering. For a very smooth surface, use intermediate grinding, filling, or matt sealing. For areas with exposure to water, use the matt top sealer **EP 860**.

Floor and air temperature must not fall below 10 °C / 50 °F and humidity must not exceed 75 %. The material to be applied must be at room temperature during application. 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 to exclude a dew point on the surface to be coated and the fresh coating. Otherwise, regular curing will not be possible with hardening problems and foaming to occur.

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 33** or **VR 28** immediately.

Separate cleaning and care recommendations are available for cleaning floors produced with KLB coatings and sealants.

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 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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PU475Spezial-V1-112013
DIN EN 13813:2003-01
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR10

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 10

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. In addition, our "General Terms and Conditions“ apply.