KLB KÖTZTAL
Lacke+Beschichtungen GmbH

KLB-SYSTEM POLYURETHAN
PU 410

High-Quality, Light-Resistant, 2-Component Polyurethane Coating

Mixing Ratio	Parts by weight:	A : B = 2 : 1		
	Parts by volume:	A : B = 100 : 63		
Application	Temperature	10°C	20°C	30°C
	Time	45 - 50 mins.	25 - 30 mins.	15 - 20 mins.
Working temperature		minimum 10°C (room- and floor- temperature)		
Setting	Temperature	10°C	20°C	30°C
	Time	24 - 36 hrs	18 - 24 hrs	12 - 15 hrs
Hardening	Mechanical	2 -3 days for exposure to mechanical forces		
	Chemical	7 days for resistance to chemicals		
Further coatings		after 18 - 24 hours		
Consumption		1.30 kg/m² per 1 mm of thickness		
Recommended Thickness		2.0 mm		
Colours		12 KLB standard colours, other colours on request		
Packaging		Combi-can 10 kg, Combi-Hobbock 30 kg		
Shelf life		12 months (in original, sealed packaging)		

Description and Properties

KLB SYSTEM POLYURETHAN PU 410 is a high-quality, self-flow coating based on liquid, 2-component polyurethane resin. **PU 410** is used to produce flexible floor coatings primarily in interior locations and with sound-absorbing and decorative properties. **PU 410** is used in areas in which good wear properties, comfort and pleasant appearance are required, such as in exhibition areas, offices and showrooms, hospitals, etc. Unlike the usual, industrial polyurethane coatings, **PU 410** is made from light-fast raw materials and can be produced in light, decorative colours as the finished coating has excellent colour stability. The coating has good flow and smoothing properties and sets with almost no shrinkage. The hardened coating has good flexibility and, with a coating thickness from 2 mm. bridges cracks. For interior surfaces that require somewhat greater flexibility, e.g. mastic asphalt, chipboard, metal and existing surfaces being refurbished, **PU 410** is suitable.

Resistance to water, salt solutions, diluted alkalis and acids is good. **PU 410** can be supplied in 12 standard colours and also in bright, special colours. The coating is suitable for scatter-finishes with PartiColor Chips. **PU 410** has good wear resistance but it is recommended to apply a suitable seal-coat such as **PU 882** or **PU 880**.

Product Features

- light resistant
- smooth, coloured surface finish
- flexible and crack-bridging
- sound insulating
- solvent-free
- ready to apply
- for renovation work

Areas of Use

- high-quality, decorative flooring in areas with special requirement for resistance to light and yellowing
- high underfoot comfort due to its tough and flexible composition
- for sales areas, offices, exhibitions, etc.

Finish Construction

- prime with the recommended KLB-SYSTEM primer
- scratch-coat with a mixture of the primer and **KLB quartz sand 2/1**. For mastic asphalt, skim-coat with PU coating material
- application of the wearing coat of **PU 410**, consumption approx. 2.3 – 2.6 kg/m²
- scatter with PartiColor Chips
- top seal-coat with **PU 882** or **PU 880**, consumption 0.150 – 0.180 kg/m²

Substrate

The surface to be coated must be flat, dry, dust-free, have adequate tensile and compressive strength and be free from constituents and finishes that would impair adhesion. Remove contaminants such as grease, oil and paint residues using suitable methods. Moisture content of concrete should not exceed 4.0 CM-%. Any potential for moisture ingress must be excluded. Refer to the notes issued by the trade associations, e.g. the current versions of BEB worksheets KH-0/U and KH-0/S as well as the notes in the Product Information Sheets for the recommended KLB primers, e.g. **EP 50**, **EP 51 Rapid S** and **EP 52**. The surface to be coated must be mechanically prepared. The prepared surface must be carefully and fully primed ensuring a full seal. If the primed surface is not fully sealed, bubbles and pin-holes can occur in the coating caused by rising air from the substrate. If in doubt, prepare a test area. To improve adhesion, broadcast the surface with approx. 0.5 – 1.0 kg/m^2 of quartz sand 0.3/0.8 to form a dry excess.

Mixing

With combi-cans, factory-measured material in the precise mixing ratio is provided in one package. The can containing Component A is large enough to accept the total mix quantity. Fully decant hardener B into the can of resin. Blend mechanically with a slow-speed mixer (200 – 400 rpm) and for 2 – 3 minutes until a homogeneous, streak-free mixture is achieved. To avoid mixing errors, we recommend to pour the mixed resin into a clean drum and briefly mix again.

Application

Application is carried out immediately after mixing using a rake or notched trowel and by pulling out a coat of even thickness onto the prepared surface. The product is formulated to allow air to expel, though rolling with a spike roller is recommended to improve contact with the substrate, maximise flow and remove bubbles. Rolling with the spike roller should be after a delay of 10 – 15 minutes.

To ensure joints do not show, always work “fresh-in-fresh” and determine the working bays before commencing. As the material must expel air, do not apply the scatter material too early – optimum timing at 20°C is after 15 – 30 minutes.

Polyurethane coatings, whilst still fresh, are sensitive to moisture. The air humidity conditions must, therefore, be strictly maintained. Coating of surfaces dampened by dew, as well as the use of damp sand and even perspiration will lead to foaming of the material and must be avoided.

The temperature of floor and air must not fall below 10°C and the air humidity must not be above 75%. The difference between floor and room temperature must be less than 3°C, otherwise the setting will be affected. In the event of a dew-point situation, proper drying will not take place, the setting process will be disturbed and spots will form. Avoid exposure to wetting during the first 7 days. The quoted setting times apply at 20°C; low temperatures lengthen the working- and setting- times whilst temperature increases shorten them. Should the working conditions not be maintained, variation from the prescribed technical properties of the end product may occur.

For cleaning equipment, **VR 28** Thinners are recommended.

Storage / Transport

Store in dry and, where possible, frost-free conditions. Ideal storage temperature is 10 – 20 °C. Before application, bring to a suitable working temperature. Tightly re-seal opened containers and use the contents as quickly as possible.

The product falls outside the hazardous materials-, operational safety- and transport- regulations for hazardous goods. The relevant notes are in the DIN Safety Data Sheet. Refer to the label notes on the container!

GISCODE: PU 40

Technical Data*

Viscosity Comp. A+B	3600	mPas	DIN EN ISO 3219 (23°C)
Solid Content	> 99	%	(KLB factory standard)
Density Comp. A+B	1.30	kg/litre	DIN EN ISO 2811-2 (23°C)
Weight loss	0.5	% by weight	(after 28 days)
Shore-hardness D	62	-	DIN 53505 (after 7 days)
Abrasion resistance (Taber)	25	mg	ASTM D4060

(* values achieved in sampling are average values. Variations from the product specification are possible)