



KLB-SYSTEM POLYURETHANE PU 800 E

Solvent-free, light-resistant, 2-component polyurethane matt seal

Mixing Ratio	Parts by weight	A : B =	100 : 10
	Parts by volume	A : B =	100 : 10
Set-up Time	after mixing, wait min. 10 minutes and then mix again		
Working	Temperature	10°C	20°C 30°C
	Time	180 mins	120 mins 50 mins
Working Temperature	minimum 10°C (room and floor temperature)		
Setting (to foot traffic)	Temperature	10°C	20°C 30°C
	Time	14 - 18 Std.	12 - 14 Std. 8 - 12 Std.
Hardening	touch-dry after 2 - 3 hours at 20°C		
	2 - 3 days until resistant to mechanical wear at 20°C		
	7 days until chemical-resistant at 20°C		
Further Applications	After 12-18 hrs, not later than 48 hrs		
Consumption	0.18 - 0.22 kg/m ²		
Packaging	combi-can 5.5 kg, combi-can 11 kg		
Shelf life	12 months (in original sealed containers) – protect from frost!		

Description and Properties

KLB-SYSTEM POLYURETHANE PU 800 E is a high quality, colourless, 2-component polyurethane seal-coat that is used as a matt finish on epoxy-resin and polyurethane coatings. **PU 800 E** is based on a new, environment-protective technology, represents an excellent alternative to solvent-based seal products and can be used in a wide range of areas. Application is by mohair- or velour-roller using cross-strokes. Due to its very low solvent content, no expensive protective measures are required. Due to its drying performance, very consistent and "beautiful" surfaces can be produced.

The seal-coat produces a consistent, matt surface finish that gives the coating a pleasant and attractive appearance. "Mirror-effects" of gloss coatings are reduced by the light refraction of the surface so that the area of use for this product can be seen as mainly those surfaces with aesthetic demands.

PU 800 E cures by physical drying and chemical cross-linking to produce a highly resistant and robust film. The product gives a tough, abrasion-resistant, light-fast film that has low soiling properties and is easy to clean.

PU 800 E has good resistance to liquid solutions, dilute

acids and alkalis, as well as motor- and heating- oils. In addition, the product has a low tendency to staining from household chemicals and strongly coloured foodstuffs, such as beer, red wine or Cola. The hardened material is physiologically harmless.

Due to its water vapour permeable composition, it can also be used as a seal-coat on diffusive coatings, such as **KLB-System EP 785 HS**.

PU 800 E has good adhesion to various substrate types and can, therefore, subject to preparing a trial surface and testing the intermediate layer adhesion, be used on existing epoxy-resin or polyurethane coatings.

Product Features

- matt surface finish
- low solvent content
- protects the environment
- abrasion-resistant
- low odour
- water vapour permeable
- excellent adhesion
- uniform appearance
- easy to apply

Areas of Use

- **PU 800 E** is used as a colourless matt seal-coat on high quality epoxy-resin and polyurethane coatings in interior locations where there is high demand on appearance.
- Decorative commercial surfaces, with and without décor scatter-finishes, such as in showrooms, exhibition areas, retail shops, etc. usually without, or with only little, traffic with goods handling equipment.
- As a finish on high quality, light-fast, flexible décor-coatings produced with **PU 410** in interior locations.
- As a matt seal-coat on water vapour permeable coatings, such as **EP 785 HS**, with or without scatter-chips.
- Sealing and re-working of existing surfaces of epoxy- and polyurethane- resin, after appropriate testing and preparation
- As a finish on coatings of hardened cement or abraded concrete, after priming with **EP 722 E** or **EP 725 E**

Substrate

The substrate to be coated must be level, dry, dust-free, have adequate compressive and tensile strength and be free from weakly bonded materials and surface sections. Materials that will impair adhesion, such as grease, oil and paint residues, must be removed using suitable processes. Please refer to the current editions of the recommendations of the trade associations, e.g. BEB work-sheets KH-0/U and KH-0/S. Normally, the seal-coat is applied as the last coat in the course of installing a coating. It must be ensured that the preceding coat is not contaminated. The optimum time-point for application of the seal-coat is when the preceding coat has hardened to an adequately resistant film but is not yet fully cured. For normal systems, at 20°C, this is not earlier than 18 hours and not later than 48 hours. If the seal-coat will be applied at a later time, it must be determined by laying a trial surface and testing, that adequate adhesion can be achieved.

On existing surfaces, cleaning and, if necessary, mechanical preparation must be carried out. If old synthetic resin surfaces are to be sealed, it must be ensured by testing that adequate adhesion can be achieved, if in doubt, a trial area is recommended.

Mixing

With combi-cans, the material is measured at the factory in the exact mixing ratio and supplied in practical packaging. Before use, bring the container of Component A to room temperature and shake well, then empty the contents into a clean oval bucket. Add Component B and mix immediately. Mixing is by mechanical means using a slow-running drill-mixer (200-400 rpm) and should take at least 2 – 3 minutes until a uniform, streak-free mixture is achieved. If part quantities are to be mixed, these should be measured

out in the correct mixing ratio. To avoid mixing errors, it is recommended that the mixed resin is decanted into a clean container and briefly mixed again.

Set-up Time

Wait at least 10 minutes (pre-reaction)

In order to achieve the optimum technical properties, PU 800 E must be mixed at least 10 minutes before application. Then briefly mix again to guarantee that it is fully homogenised.

The application time must be a maximum of 2 hours (see the chart: Application Times)

Note: the end of the pot-life is not identifiable!

Application

As with all reaction resins, application should follow immediately after mixing. Application is with a lint-free and solvent-resistant mohair- or velour- roller.

Normally, working bays should be marked out in advance so as to avoid applying several coats and haphazard overlapping. These can result in inconsistent surface appearance and lead to the formation of stripes.

In large areas it is recommended that at least 2 or more people undertake the application. One or more person(s) apply the material in one direction and another distributes the fresh material using cross-strokes (at 90 degrees). In larger areas, a 50 cm wide roller should be used. The roller used for distribution should be soaked / wetted with the material and used only for distribution, never for application. Always work fresh-in-fresh and ensure the best possible distribution of material. Ensure that pooling is avoided as otherwise hazing may occur.

The floor and air temperature must not be below 10°C and the air humidity must not be above 75%. The temperature difference between floor and room temperature should be less than 3°C so that setting is not affected. In the event of a dew-point situation, proper drying cannot occur and setting will be disturbed and spots will form. Avoid exposure to wetting during the first 7 days. The stated setting times apply at 20°C; at lower temperatures the working- and setting- times are extended and, at higher temperatures, they are shortened. If the application conditions are not maintained, this can lead to variations in the stated technical properties of the end product.

Cleaning

Cleaning of tools removal of fresh contamination and must be carried out immediately with water. Hardened material can only be removed by mechanical means.

Lagerung/ Transport:

Store in dry and frost-free conditions. Ideal storage temperature is 10°C-20°C – do not store at above 35°C . Before application, bring to suitable working temperature. Tightly re-seal opened containers and use the contents as quickly as possible. Shelf life 12 months in original sealed containers.

The product falls outside the hazardous substances regulations and usage safety regulations, as well as the transport regulations for hazardous goods. The required notes are contained in the DIN Safety Data Sheet. Refer to the notes on the container label!

GISCODE: W3 / DD

Technische Daten*

Viscosity	Component A+B	approx. 200	mPas	DIN EN ISO 3219 (23°C)
Solid Content		> 40	%	TP OS 3.6/DIN EN ISO3251
Flash-point		non-flammable		DIN 51755
Density	Component A+B	1.05	kg/l	DIN EN ISO 2811-2 (20°C)
Abrasion (Taber test)		< 12.5	mg	ASTM D4060
Diffusion resistance factor		7500	–	DIN EN ISO 12572
Diffusion equivalent				DIN EN ISO 7783-2
Air layer thickness sd (0.1mm)		0.75	m	DIN EN ISO 7783-2
Gloss (85°)		25	–	DIN 67530

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

Details are based on our experience and practical testing. We guarantee the perfect quality of our products, but cannot accept responsibility for the success of your completed work as we have no influence on the application and application conditions. It is recommended, in individual cases, to prepare a test surface. In addition, our "General Conditions of Trade" apply. The publication of this, new Data Sheet invalidates all preceded information.



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