CHEMORESIN
eine Marke der KLB Kötztal Lacke + Beschichtungen GmbH

CHEMORESIN PU-BETON 4080

Pigmented 3-component top sealer for CHEMORESIN PU-BETON

Packaging units

Article no.	Packaging	Content (kg)
AK6180-70	Combo packaging	7.60 kg
AK6180-23	Combo packaging	22.80 kg

Product characteristics

Mixing ratio parts by weight	A : B : C = 100 : 100 : 180
Processing time	5 °C / 41 °F : 20 - 30 min. 10 °C / 50 °F : 15 - 20 min. 20 °C / 68 °F : 12 - 15 min. 25 °C / 77 °F : 10 - 12 min. The addition of accelerator CHEMORESIN PU-BETON 4094 KAT can reduce the processing time.
Processing temperature	Minimum 5 °C / 41 °F – Maximum 25 °C / 77 °F (room and floor temperature; at lower temperatures, accelerator CHEMORESIN PU-BETON 4094 KAT can be added)
Curing time (accessibility)	5 °C / 41 °F : 18 - 22 hrs. 10 °C / 50 °F : 15 - 18 hrs. 20 °C / 68 °F : 8 - 12 hrs. 25 °C / 77 °F : 6 - 8 hrs. The addition of accelerator CHEMORESIN PU-BETON 4094 KAT can reduce the hardening time.
Curing	1 - 2 days until mechanical load at 20 °C / 68 °F 2 days until chemical load at 20 °C / 68 °F
Consumption	0.400 - 0.900 kg/m²
Packaging	Combo packaging 7.60 kg / 22.80 kg
Colours	Beige, red, green, grey
Shelf life	12 months – **Store dry and frost-free!**

Product description

CHEMORESIN PU-BETON 4080 is a solvent-free, pigmented 3-component polyurethane concrete sealer for top sealing of surfaces based on **CHEMORESIN PU-BETON 4004/4006/4009** and for sealing plinths or covings made of **CHEMORESIN PU-BETON 4012**.

CHEMORESIN PU-BETON 4080 is generally used on fully scattered coatings made of **CHEMORESIN PU-BETON 4004/4006** or **CHEMORESIN PU-BETON 4009** for producing slip-resistant, non-porous surfaces. The mixed product is applied with a rubber squeegee on the sand bed and distributed evenly with a velours roller in crosswise motion. In combination with silicium carbide and **KLB-SYSTEM EPOXID EP 799 Ableitgrund**, conductive floors can be produced.

CHEMORESIN PU-BETON 4080 consists of 3 reactive components, which are carefully aligned and result in a slightly textured, matt, nonporous surface. The covering is available in standard colours and consists of the liquid components **CHEMORESIN PU-BETON 4080** Components A and B, and the mineral

Component C. By adding catalyst **CHEMORESIN PU-BETON 4094 KAT**, the top sealer's chemical reaction, accessability and time until usability can be significantly accelerated. This is particularly advantageous for repair works or renovations with tight time windows.

CHEMORESIN PU-BETON 4080 is certified by EUROFINS and EMICODE® EC 1^{PLUS}; thus meets the requirements for a sustainable building certification according to DGNB, LEED or BREEAM; not only the German requirements of AgBB or ABG, but also the emissions regulations of many other European countries.

The coating is resistant to abrasion and offers very good resistance to many chemicals, especially to aqueous saline solutions, to different acids and bases as well as to solvents. After complete curing, the chemical resistance of **CHEMORESIN PU-BETON 4080** equals the other **CHEMORESIN PU-BETON** systems.

Due to its composition, yellowing may occur when exposed to UV rays, which may be more or less visible depending on the colour tone. However, this will not affect any of the material's chemical, mechanical or thermal properties. **CHEMORESIN PU-BETON** coverings are functional and their optical appearance may not always be consistent. Differences in colouring, gloss level and traces of work areas or anchoring grooves may become visible, especially on smooth coatings (R9).

Area of application

- As system top sealer for **CHEMORESIN PU-BETON** coating systems, like **CHEMORESIN PU-BETON 4004**, **4006** or **4009**.
- As slip-resistant scattered coating, especially suitable for wet areas with increased demands on the temperature and chemical resistance, such as dairy farms, slaughterhouses, breweries, and other areas in the food processing industry.
- As top sealer on plinths made of **CHEMORESIN PU-BETON 4012**.
- Suitable for creating conductive coatings, e.g. for EX protection when used in combination with silicium carbide and **EP 799 Ableitgrund**.

Product features

- low-emission formulation
- EMICODE® EC 1PLUS certified
- compliant with AgBB and suitable for recreation rooms
- PU-Beton system component
- resistant to abrasion and wear
- resistant to hot water
- solvent-free
- coloured surface
- especially for slip-resistant coatings
- high chemical resistance
- resistant to permanently wet conditions
- available in several colours
- matt
- can be accelerated
- rapid-setting
- can be used from 5 °C with accelerator

Technical data

Density - Component A+B+C	1.53	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Weight loss	< 2.0	weight-%	after 28 days
Water absorption	< 0.2	weight-%	DIN 53495
Gloss level	< 10 (85°)	-	DIN 67530
Electrical resistance	(In combination with EP 799 Ableitgrund and SiC) approx. 10^6	Ohm	DIN EN 61340-4-1 DIN EN 61340-5-1 DIN ISO 347-1

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

Included in systems

- System I1 - KLB CHEMORESIN PU-BETON Standard
- System I2 - KLB CHEMORESIN PU-BETON RX

Please visit our website to get more information about our KLB systems: www.klb-koetztal.com

Tests

The following external and internal test certificates are available:

- Certified as low-emission according to EMICODE with the EC 1^{PLUS} label. Compliant with AgBB for recreation rooms.
- Slip resistance grade R10 possible, according to DIN EN 16165 and DIN 51130.
- Scattered coatings with slip resistance grade R11/V4, R12/V4, R12/V6, R13/V6 possible, according to DIN EN 16165 and DIN 51130.
- Classification of the fire behaviour in combination with PU-BETON coatings, according to DIN EN 13501-01:2010-01: B_{fl}-s1.
- Suitable for use in foodstuffs according to § 31 para. 1, German Food and Feed Code (German law LFGB).
- Product is compliant with DIN EN 13813: 2003-01.

Note:

Please ask for the tested system build-up!

Build-up of coats

Coating based on **CHEMORESIN PU-BETON 4004/4006/4009** with slip resistance grade R11/12/13

- Saturated base coat with system primer **PU-BETON 4051,** consumption approx. 0.4 - 0.5 kg/m².
- Use the specially stable **PU-BETON 4012** for triangular or concave covings. For a side length or radius of 5 cm: consumption approx. 2.2 - 2.8 kg per running meter. Also suitable for filling larger holes or cavities
- If necessary: larger uneven areas may be filled respectively levelled with **PU-BETON 4045** or **PU-BETON 4004.** If required, scatter with fire-dried quartz sand 0.7/1.2 mm.
- Apply the coating **PU-BETON 4004** with a pin screed scraper in a layer thickness of approx. 4 mm, **PU-BETON 4006** in a layer thickness of approx. 6 mm or **PU-BETON 4009** in a layer thickness of approx. 9 mm. Vent with a spiked roller.
- Scatter the entire surface with fire-dried quartz sand of grain size 0.3/0.8 mm or 0.7/1.2 mm. After curing, sweep off and vacuum thoroughly until no more sand is being released.
- Apply **PU-BETON 4080** with a rubber squeegee and re-roll with a velour roller in crosswise motion. Consumption approx. 0.500 - 0.000 kg/m². Work fast and seamless.

It is mandatory to adhere to the consumption quantities for obtaining the required degree of slip-resistance.

Electrically conductive coating with **CHEMORESIN PU-BETON 4080** and silicium carbide

- Saturated base coat with system primer **PU-BETON 4051**, consumption approx. 0.4 - 0.5 kg/m².
- Use the specially stable **PU-BETON 4012** for triangular or concave covings. For a side length or radius of 5 cm: consumption approx. 2.2 - 2.8 kg per running meter. Also suitable for filling larger holes or cavities.
- If necessary: larger uneven areas may be filled respectively levelled with **PU-BETON 4045** or **PU-BETON 4004.** If required, scatter with fire-dried quartz sand 0.7/1.2 mm.
- Apply the coating **PU-BETON 4004** with a pin screed scraper in a layer thickness of approx. 4 mm, **PU-BETON 4006** in a layer thickness of approx. 6 mm or **PU-BETON 4009** in a layer thickness of approx. 9 mm. Vent with a spiked roller.
- Glue KLB-Kupferbänder copper bands for discharge in an imagined grid-pattern in place into the room – every 6 - 8 m, up to 1 - 2 m. Earth connection by an electrician based on VDE regulations.
- Apply a cross-conductible coat with **EP 799 Ableitgrund**, consumption approx. 0.100 - 0.140 kg/m².
- Fill **PU-BETON 4080** with 20% of quartz sand 0,3/0,8 mm and apply it with the smoothing trowel, then re-roll with a velours roller in crosswise motion, consumption approx. 1.0 - 1.2 kg/m² (mixture).
- Scatter the fresh surface in excess with silicium carbide of an appropriate grain size depending on the required slip-resistance grade (0,2/0,5 mm, 0,3/0,8 mm or 0,7/1,2 mm), consumption approx. 4 - 5 kg/m².
- After curing, sweep off the excess and vacuum thoroughly until no more silicium carbide is being released.
- Apply **PU-BETON 4080** with a rubber squeegee and re-roll with a velours roller in crosswise motion. Consumption approx. 0.700 - 0.900 kg/m². Work fast and seamless.

It is mandatory to adhere to the consumption quantities for obtaining the required degree of slip-resistance.

Substrate

The substrate to be coated must be even, non-slip, sufficiently resistant to tension and compression, clean as well as be free from weakly-bonded and sandy components or any impurities. Materials impairing adhesion such as grease, oil and paint residues should be removed with suitable measures. The substrates must have a sufficiently high strength for the intended use as well as for the coating. Proper substrate preparation is a prerequisite here. Suitable substrates are concrete with a minimum quality of C25/30 according to DIN EN 206, cement screed and polymer-modified cement screeds with at least CT-C30-F5 in composite with a minimum layer thickness of 60 or 30 mm, according to DIN 18560 part 3. Screeds as separating layer or insulation, polymer-modified, CT-C40-F5 at least with a layer thickness > 65 mm, according to DIN 18560 part 4. Other substrates are not or not generally suitable. The substrates to be coated must be prepared mechanically, preferably by shot-blasting. The surface strength must then be at least 1.5 N/mm². For anchoring the coating, anchoring grooves are to be provided at the end edges, passages, etc. These should be approx. 6 to 10 mm deep and wide. For concrete, the moisture content must not exceed 6 CM-%. The possibility of moisture ingress from the rear must be permanently excluded. 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 of the recommended base coat **CHEMORESIN PU-BETON 4051**. On areas with increased thermal exposure, it is recommended to only use **PU-BETON 4051**. 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. Subsequently, apply one of the CHEMORESIN PU-BETON coverings, such as **PU-BETON 4004, PU-BETON 4006** or **PU-BETON 4009** in an appropriate layer thickness. **PU-BETON 4080** is usually suitable for substrates that have been completely scattered with quartz sand. Surfaces must be free of excess sand and must not be dirty before

applying the top sealer. Wear clean shoes or overshoes when working on scattered areas.

Product components

CHEMORESIN PU-BETON 4080 consists of the following components:

1 packaging unit **PU 4080** Component A: 2.00 kg
1 packaging unit **PU 4080** Component B: 2.00 kg
1 packaging unit **PU 4080** Component C: 3.60 kg

Total quantity from one mixture: 7.60 kg

1 packaging unit **PU 4080** Component A: 6.00 kg
1 packaging unit **PU 4080** Component B: 6.00 kg
1 packaging unit **PU 4080** Component C: 10.80 kg

Total quantity from one mixture: 22.80 kg

The hardening times can be reduced by adding **CHEMORESIN PU-BETON 4094 KAT**. Please observe the product data sheet of the catalyst.

Mixing

Combo-packaging will be supplied in the correctly measured mixing ratio. Only in the present mixture of the three components can the described processing and material properties be achieved. At first, empty all of the liquid binding agent components (Components A + B) into a proper container and blend with a slow speed mixer (200 - 400 r/pm) for at least 1 minute, until a homogeneous, streak-free compound forms.

Mixing in Component C should be carried out with a slow speed mixer (200 - 400 r/pm) for a consistent quality. Add the premixed binding agent into another clean mixing container, then add Component C and homogenise for another 3 minutes (at 20 °C / 68 °F). Repot and mix again briefly. Lower temperatures may increase, higher temperatures may decrease the mixing time.

At lower temperatures, the addition of **CHEMORESIN PU-BETON 4094 KAT** can accelerate the hardening. Please observe the product data sheet of the catalyst.

Note: pay attention to consistent mixing times. Process complete packaging units only! Inaccurate mixing ratios will lead to useless results. For triple units, the mixing ratio (see above) must be observed!

The temperature of the components should have 10 - 20 °C / 50 - 68 °F during mixing. Due to the relatively short processing time of the material, mixing must be carried out quickly but thoroughly.

Processing

Processing is carried out immediately onto the carefully prepared substrate. Excess sand must have been removed. Apply the mixed material in portions and distribute it onto the prepared substrate with a foamed rubber wiper or a rubber squeegee. Ensure an even distribution. Only re-roll with a short time delay using a velour roller for equalisation. When sealing smooth, not scattered surfaces, apply the material with a rubber squeegee and pull off over the grain. Then re-roll with a velours roller. Always work “fresh-in-fresh” to avoid any shoulders and divide working areas before starting; if necessary with adhesive tape, for a clean connecting field.

Floor and air temperature must not fall below 5 °C / 41 °F and humidity should be between 40 and 85%. 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 will not be possible with hardening problems and spotting to occur. 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 end product's technical properties may deviate from the description.

Cleaning

To remove fresh contamination and to clean tools or equipment, use **VR 28** or **VR 33** immediately. 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. Process complete packaging units only!

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 140 g/l (2010,II,j/wb): Ready-for-use product contains < 140 g/l VOC.

CE marking

CE	
KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 89335 Ichenhausen, GERMANY	
23	
PU-Beton4080-V1-092025	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B2,0-AR0,5-IR20	
Fire behaviour	B_{fl}-s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0,5
Adhesive tensile strength	B 2,0
Impact resistance	IR 20

Please consider the latest version of this product information on our website.

KLB KÖTZTAL Lacke+Beschichtungen GmbH
Günztalstraße 25
89335 Ichenhausen, GERMANY
Phone +49 (0) 8223-96 92-0
Fax +49 (0) 8223-96 92-100
www.klb-koetztal.com
info@klb-koetztal.com