KLB KÖTZTAL
Lacke+Beschichtungen GmbH

KLB-SYSTEM BALKON
BS 570 WP

2-component polyurethane intermediate layer, elastic even at low temperatures, for producing light-stable and slip-resistant surfaces on outdoor balconies, loggias or pergolas

Packaging units

Article no.	Content (kg)	Units/pallet
AK6144-47	10.00 kg	30

Product characteristics

Mixing ratio parts by weight	A : B = 1 : 1
Mixing ratio parts by volume	A : B = 1.0 : 1.4
Processing time	10 °C / 50 °F : 25 - 35 minutes 20 °C / 68 °F : 20 - 25 minutes 30 °C / 86 °F : 10 - 15 minutes
Processing temperature	Minimum 10 °C / 50 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F : 22 - 28 hrs. 20 °C / 68 °F : 14 - 20 hrs. 30 °C / 86 °F : 10 - 14 hrs.
Curing	2 - 3 days until mechanical load at 20 °C / 68 °F 7 days until chemical load at 20°C / 68 °F
Further coatings	After 14 - 20 hours, but after 48 hours at the latest at 20°C / 68 °F. Protect scattered surfaces from rain.
Consumption	Floating or wearing layer : approx. 1.9 - 2.4 kg/m² / while adding 30% by weight of quartz sand 0.1/0.3
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM BALKON BS 570 WP is a 2-component polyurethane coating, elastic even at low temperatures, for the production of slip-resistant, light-stable and decorative surfaces on balconies, pergolas or loggias in accordance with DIN 18531-5.

KLB-SYSTEM BALKON BS 570 WP is used in the system as a cold-elastic intermediate layer with increased dynamic crack-bridging capability. According to RiLi SiB, the material is suitable as scattering and membrane coat within the surface protection system OS 11b.

As a component of **System O1** and in combination with **KLB-SYSTEM BALKON BS 575 Top, KLB-SYSTEM BALKON BS 570 WP** produces a light-stable and liquid-tight, plain-coloured coating. With the additional scattering of **coloured quartz sand CQS-46xx** into **BS 575 Top** and the subsequent sealing layer made of **PU 484**, a decorative flooring with a speckled coloured sand look can be obtained within **System O2**. This efficiently protects the underlying building fabric against the penetration of substances that attack concrete or promote corrosion, and improves resistance to mechanical impact.

KLB-SYSTEM BALKON BS 570 WP is dynamically crack-bridging, impermeable to liquids and resistant to concrete-damaging substances, as well as many household chemicals.

KLB-SYSTEM BALKON BS 570 WP is a component of different balcony systems, especially for outdoor applications.

Area of application

- As a crack-bridging intermediate layer for decorative balcony systems with coloured sand scattering in exterior areas.
- As a crack-bridging base and utility layer for outdoor balcony systems that have been sealed with one colour.
- As waterproofing for balconies, loggias and pergolas.

Product features

- elastic and deformable
- flexible at low temperatures
- resistant to frost and de-icing salt
- impervious to fluids
- crack-bridging
- jointless coating

Technical data

Viscosity - Component A+B	3000 - 4000	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Density - Component A+B	Approx. 1.30	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Tensile strength	Approx. 12 (at -20 °C / - 4 °F)	N/mm²	DIN 53504
Elongation at break	Approx. 300 (at -20 °C / -4 °F)	%	DIN 53504
Shore-hardness A	68	-	DIN 53505 (after 7 days)

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

Included in systems

- System O1 - KLB Balcony PU Outdoor
- System O2 - KLB Balcony DECOR PU Outdoor

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

Tests

- Factory test report for the performance as waterproofing based on OS 11b and RiLi SiB for balconies, loggias and pergolas according to DIN 18531-5.
- Proof of dynamic crack-bridging of class 3.2 according to DIN 1062-7
- Declaration of performance in accordance with Annex III to Regulation (EU) No. 305/2011 (Construction Products Regulation)
- Declaration of product conformity with Environmental Product Declarations (EPD)
- Product is compliant with DIN EN 1504-2:2004

Build-up of coats

System O1 KLB Balcony PU Outdoor

- Prepare the substrate such as concrete, cement screed or similar mechanically, e.g. with shot blasting. Then vacuum off thoroughly.
- Apply the **EP 52 RAPID** primer, consumption approx. 0.3 - 0.4 kg/m².
- Optionally: scratch coat made of **EP 52 RAPID** and mixed sand **KLB-Mischsand 3/1** in a mixing ratio of 1 : 1 parts by weight. Consumption approx. 0.6 - 1.0 kg/m².

- Scatter the primer or scratch coat openly using quartz sand 0.3/0.8 mm, consumption approx. 0.5 - 1.0 kg/m².
- Apply the elastic base layer **BS 570 WP** filled with 30% of quartz sand 0.1/0.3 mm using the toothed trowel **Toothed Blade RS4** or Pajarito 48, consumption approx. 2.6 - 3.0 kg/m².
- Scatter the entire surface using quartz sand with a grain size of 0.3/0.8 mm, consumption approx. 6 - 8 kg/m². Remove excess sand after curing, brush off loose grains and thoroughly vacuum off the entire surface.
- Apply the weather-resistant **BS 575 Top** top sealer, consumption approx. 0.5 - 0.8 kg/m² using a foam rubber wiper, then uniformly distribute it in crosswise motion with a velour roller.
- Optionally, a transparent matt sealer such as **PU 880** and **PU 811 E** or a pigmented matt sealer like **PU 881** can be applied.

System O2 KLB Balcony Decor PU Outdoor

- Prepare the substrate such as concrete, cement screed or similar mechanically, e.g. with shot blasting. Then vacuum off thoroughly.
- Apply the **EP 52 RAPID** primer, consumption approx. 0.3 - 0.4 kg/m².
- Optionally: scratch coat made of **EP 52 RAPID** and mixed sand **KLB-Mischand 3/1** in a mixing ratio of 1 : 1 parts by weight, consumption approx. 0.6 - 1.0 kg/m².
- Scatter the primer or scratch coat openly using quartz sand 0.3/0.8 mm, consumption approx. 0.5 - 1.0 kg/m².
- Apply the flexible intermediate layer **BS 570 WP** filled with 30% of quartz sand 0.1/0.3 mm using the toothed trowel **Toothed Blade RS4** or Pajarito 48, consumption approx. 2.6 - 3.0 kg/m².
- Scatter the entire surface using quartz sand with a grain size of 0.3/0.8 mm, consumption approx. 5 - 6 kg/m². Remove excess sand after curing, brush off loose grains and thoroughly vacuum off the entire surface.
- Apply the scattering layer **BS 575 Top** filled with 10% of mixed sand **KLB-Mischsand 3/1** or 20% of quartz sand 0.1/0.3 mm using the rubber squeegee or trowel and uniformly distribute it in crosswise motion with a velour roller, consumption approx. 1.1 - 1.3 kg/m².
- Scatter the surface entirely with **coloured quartz sand CQS-46xx** consumption approx. 3 - 4 kg/m².
- Carefully remove the quartz sand excess with an appropriate vacuum cleaner. The surface should only be walked on by the coating installer, wearing clean, light-coloured shoes and clean clothing.
- Apply the non-yellowing **PU 484** top sealer, consumption approx. 0.5 - 0.8 kg/m² using a hard rubber wiper, then uniformly distribute it in crosswise motion with a velour roller.
- Optionally, a matt sealer with **PU 880** or **PU 811 E** can be applied.

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 the trade associations, e.g. the most recent versions of BEB worksheets KH-0/U and KH-0/S as well as the notes in the product information of the recommended KLB primer **EP 52 RAPID.** The surface strength must then be at least 1,5 N/mm². For concrete, moisture content must not exceed 4.5 CM-%, remaining residual humidity. The possibility of moisture ingress from the rear must be permanently excluded.

Under certain circumstances, **EP 52 RAPID** may be applied onto substrates with increased dampness (up to approx. 6.0 CM-%). In those cases, a double layer of primer is required. If necessary, get technical support from KLB.

In case of very uneven substrates, 0.3 - 0.5% of reinforcement fibres **VA 1004 Armierungsfaser** (based on **EP 52 RAPID**) can be added to the scratch coat. To do so, **KLB-Mischsand 3/1** is mixed with **EP 52 RAPID** in a mixing ratio of 1 : 1, then is added the reinforcement fibres. The application is done with the smoothing trowel over grain. The surface must be fully scattered to avoid bald patches.

Primers must not be left open for longer than 48 hours; otherwise, primers or scratch coats must be scattered openly with quartz sand prior to the application of **BS**

570 WP. The substrates to be coated should be prepared mechanically, preferably by shot blasting. The prepared area must be saturated, pore-free and primed carefully. It is often difficult to judge the necessary pore-free condition of substrates. It is therefore recommended that a scratch coat be applied to smooth the surface. 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. Old substrates must be cleaned before any mechanical preparation. If old synthetic resin surfaces need to be sealed, it must be ensured that sufficient adhesion is achieved. In case of doubt, we recommend testing on a trial surface.

Reconstruction beyond the regular requirements demands further substrate testing, e.g. by conducting a tensile bonding test.

Mixing

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

Addition of quartz sand: after components A and B have been mixed. Suitable is fire-dried quartz sand with a grain size of 0.1/0.3 mm.

Processing

Processing of the coating made of **BS 570 WP** and quartz sand 0.1/0.3 mm is carried out immediately after mixing with a squeegee or toothed trowel (e.g. RS4 or Pajarito 48) by pulling out an even layer on the prepared substrate. The product is adjusted for optimum deaeration, however, rolling with a spiked roller is recommended to improve the wetting of the substrate, to optimise levelling and to remove remaining air bubbles. This should be carried out time-delayed after approx. 10 - 20 minutes. In order to work seamlessly, always work “fresh-in-fresh” and define work areas before starting.

For reasons of deaeration, do not scatter too early; the optimum time is at 20 °C / 68 °F after 10 - 30 minutes. Scatter with sand until the area is completely covered. Scattering too late may cause an uneven surface with bald spots to appear later on. Protect scattered surfaces from rain!

The consumption and, if necessary, the wet layer thicknesses must be checked.

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 will not be possible with hardening problems 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 (surface and load-bearing capability).

Cleaning

To remove fresh contamination and to clean tools, use thinner **VR 28** or **VR 33** immediately. Hardened material can only be removed mechanically.

Storage

Store in dry and at frost-free conditions. Ideal storage temperature is between 10 °C - 20 °C / 50 °F - 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: PU45

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

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KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen
23
BS570WP-V1-072023
DIN EN 1504-2:2004
Surface protection products-coating DIN EN 1504-2: ZA.1d,ZA.1f,ZA.1g

Abrasion resistance	complied with
CO_2 permeability	S_D > 50m
Water vapour permeability	Class III
Capillary water absorbtion and water permeability	< 0.1 kg/m²*h0.5
Resistance to increased chemical excavation	complied with
Impact resistance	Class I
Tear-test for adhesive strength evaluation	> 1.5 N/mm²
Fire behaviour	C_{fl}-s1
Compatibility to temperature Change	complied with
Crack bridging ability	B 3.2 (-20 °C)
Grip	Class III

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

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