

KLB-SYSTEM ACRYL

AC 820

Rapid-setting sealing resin for hard, smooth and scattered acrylic resin coatings (PMMA)

Packaging units



Article no.	Packaging	Content (kg)	Units/pallet
MA0003-52	Canister	10.00 kg	50
MA0003-30	Hobbock	25.00 kg	12
MA0003-02	Drum	190.00 kg	2

Product characteristics

Processing time	-5 °C / 23 °F : 25 min. 0 °C / 32 °F : 22 min. 5 °C / 41 °F : 20 min. 12 °C / 53.6 °F : 18 min. 20 °C / 68 °F : 14 min. 30 °C / 86 °F : 10 min.
Curing time (accessibility)	-5 °C / 23 °F : 2.0 - 2.5 hrs. 0 °C / 32 °F : 60 min. 5 °C / 41 °F : 50 min. 12 °C / 53.6 °F : 40 min. 20 °C / 68 °F : 30 min. 30 °C / 86 °F : 20 min.
Dosage of hardener	-5 °C / 23 °F : 4.0 % 0 °C / 32 °F : 4.0 % 5 °C / 41 °F : 3.0 - 4.0 % 12 °C / 53.6 °F : 2.0 - 3.0 % 20 °C / 68 °F : 1.5 - 2.0 % 30 °C / 86 °F : 1.0 - 1.5 %
Consumption	Approx. 0.4 - 0.6 kg/m ²
Colours	Non-pigmented; for colouring use KLB pigments
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM ACRYL AC 820 is a reactively curing, low-viscosity acrylic resin, used for top sealing smooth and **partiColor®-chips** (flakes) scattered coatings, as well as for coloured sand scattered, slip-resistant coatings.

KLB-SYSTEM ACRYL AC 820 is suitable as sealer on acrylic resin coatings, especially for dry or completely dry areas exposed to mechanical load. The material may be used on **KLB-SYSTEM ACRYL AC 320** and **KLB-SYSTEM ACRYL AC 313**. **KLB-SYSTEM ACRYL AC 826** is predominantly more suitable for areas exposed to water.

Process after the addition of the recommended amount of hardener. Pigment may be added if coloured top sealing is desired. **KLB-SYSTEM ACRYL AC 820**, just like all other KLB acrylic resin systems, is characterized by a rapid setting, and may also be used at lower temperatures. Please obtain advice to this matter separately! The product cures to a hard and tough synthetic coating with good usage properties such as high resistance to wear and to any common chemicals.

Coatings made of **KLB-SYSTEM ACRYL AC 820** can be exposed to up to approx. 80 °C / 176 °F in dry conditions and with hot water up to approx. 70 °C to 80 °C / 158 °F to 176 °F for a short period of time. The layer thickness of coatings exposed to mechanical and thermal load should be at least 4 mm.

The resin is slightly yellowing. When exposed to water frequently, **KLB-SYSTEM ACRYL AC 820** may turn whitish.

Note: acrylic resin coatings are thermoplastic. Skid marks caused by driving and braking on these coatings with fork lifts may show and might be difficult to remove. Please obtain advise when planning to work on such areas.

Area of application

- Transparent top sealing of acrylic resin coatings, based on **AC 313** and **AC 320**. Use on coloured sand and **partiColor®-Chips** (flakes) scattered coatings.
- Covering top sealer for acrylic resin coatings, based on natural sand scattered **AC 313** coatings.
- Commercially used areas, predominantly dry, with medium mechanical load, e.g. production areas, storage areas in many economic sections (3 - 5 mm coating).

Product features

- very rapid-setting
- quickly accessible
- cures at low temperatures
- free of deleterious substances against varnish
- reworkable after 1 hour
- good resistance to water and chemicals
- mechanically resistant
- suitable for renovations
- resistant to abrasion and wear

Technical data

Viscosity	approx. 50 - 100	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Density	0.99	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Water absorption	< 0.2	weight-%	DIN 53495
Shore-hardness D	78	-	DIN 53505 (after 7 days)

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

Included in systems

- System M2KLB INDUSTRIAL DECOR PMMA

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

Tests

External test certificates are available:

- Slip resistance grade R11/V6 or R13/V8 possible, according to DIN 51130 and BGR 181.
- Product is compliant with DIN EN 13813: 2003-01.

Note:

Please ask for the tested system build-up!

Build-up of coats

Coating scattered with coloured sand (slip-resistance grade R11/12)

- Apply base coat **AC 20**, consumption approx. 0.350 - 0.450 kg/m², depending on the substrate. Light scattering with quartz sand, grain size 0.7/1.2 mm.
- If necessary: apply a scratch coat for a planar substrate, e.g. with **AC 313** and mixed sand **KLB-Mischsand 2/1**, mixing ratio 1 : 1, parts by weight, consumption approx. 1.0 kg/m².
- Apply the base layer with **AC 313** in the desired layer thickness.
- Scatter completely in excess with coloured or natural quartz sand, grain size 0.3/0.8 mm or 0.7/1.2 mm. Consumption approx. 4 - 6 kg/m².
- After curing, sweep off any excess and vacuum thoroughly until no more sand is released.
- Apply the top sealer **AC 820**, consumption approx. 0.5 kg/m², transparent with colour sand, pigmented with natural sand with a rubber squeegee; then roll again with a velour roller in crosswise motion.
- Use **AC 826** for coatings with exposure to water.

Note: with natural sands, the sealing can be coloured with 10 %-weight of colour pigments based on the binding agent content. It is essential to follow the consumption quantities to obtain the desired slip resistance grade and the required properties.

Coating scattered with partiColor®-Chips (flakes) in excess

- Apply base coat **AC 20**, consumption approx. 0.350 - 0.450 kg/m², depending on the substrate. Light scattering with quartz sand, grain size 0.7/1.2 mm.
- If necessary: apply a scratch coat for a planar substrate, e.g. with **AC 320** and mixed sand **KLB-Mischsand 2/1**, mixing ratio 1 : 1, parts by weight, consumption approx. 1.0 kg/m².
- Apply the coating **AC 320** with mixed sand **KLB-Mischsand 2/1** in the desired layer thickness.
- Full scattering of **partiColor®-Chips** depending on the desired coloring, consumption approx. 0.4 - 0.5 kg/m².
- After curing, sweep off any loose flakes and vacuum thoroughly until no more flakes are released.
- Apply the non-pigmented sealer with a velour roller or a finely notched rubber slider. Re-roll subsequently with a velour roller in crosswise motion.
- Use **AC 820** on dry areas and **AC 826** for areas exposed to water. Consumption in both cases approx. 0.350 - 0.450 kg/m². If necessary, apply two layers of the sealing coat.

Coating without or with light partiColor®-Chips (flakes) scattering

- Apply base coat **AC 20**, consumption approx. 0.350 - 0.450 kg/m², depending on the substrate. Light scattering with quartz sand, grain size 0.7/1.2 mm.
- If necessary: apply a scratch coat for a planar substrate, e.g. with **AC 320** and mixed sand **KLB-Mischsand 2/1**, mixing ratio 1 : 1, parts by weight, consumption approx. 1.0 kg/m².
- Apply **AC 320** with mixed sand **KLB-Mischsand 2/1** in the desired layer thickness.
- If desired: scatter lightly with **partiColor®-Chips** (flakes) depending on the desired colour. Consumption approx. 0.020 - 0.040 kg/m².
- After curing, sweep off any loose flakes and vacuum thoroughly until no more flakes are released.
- Apply the non-pigmented sealer with a velour roller or a finely notched rubber slider. Re-roll subsequently with a velour roller in crosswise motion.
- Use **AC 820** on dry areas and **AC 826** for areas exposed to water. Consumption in both cases approx. 0.5 kg/m². If necessary, apply two layers of the sealing coat.

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. Substrates suitable for coating are concrete C20/25, cement screed CT-C35-F5 as well as other sufficiently solid substrates. Screeds treated with synthetic dispersions are not always suitable, as the

curing reaction of the acrylic resin can be disturbed. In case of doubt, it is recommended to create a test surface. The substrate has to have adequately high strength for the intended occupational use. Coating mastic asphalt is generally not recommended.

The substrates to be coated should be prepared mechanically, preferably by shot blasting. 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. Observe the information issued by the trade associations, e.g. the most recent versions of BEB worksheets KH-0/U and KH-0/S. Reconstructing floors may require special procedures; seek technical consultation when necessary.

Mixing

Acrylic resins and acrylic hardener compound will be delivered in individual packaging units. Since the curing reaction depends on the prevailing processing temperature, the acrylic hardener is dosed according to the section on hardener dosing.

KLB acrylic resin has to be stirred or agitated to a homogeneous resin mixture before processing. Due to the rapid curing of the material, only partial quantities to be processed within the pot life should be mixed. In any case, note the indicated limits, as curing problems may occur if too little and colour changes may arise if too much is added. Empty all of the hardener compound into the core component and mix carefully with a slow speed mixer (200 - 400 r/pm) for at least 30 - 60 seconds until the hardener powder is completely dissolved. For coloured sealing, the pigments must first be stirred in intensively, the hardener is then added at the end.

Processing

Process immediately after mixing because of the short pot-life. With these fast-curing systems, it is important that the work areas are carefully divided before starting and that sufficient personnel are available. The application must always be done "fresh in fresh". Pour the material in portions onto the clean substrate and spread it evenly with a rubber squeegee. Immediately re-roll with a velour roller in a crosswise motion.

Adequate air circulation is necessary during and after processing for good curing. Insufficient air ventilation and static air layer may result in curing disturbances. **Note:** curing is adjusted for a temperature range between -5 and 30 °C / 23 and 86 °F. For application at lower temperatures, please obtain manufacturers advice.

Floor and air temperature must not fall below -5 °C / 23 °F. If a dew-point situation arises, adhesion may be disrupted. 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 119** 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 at frost-free conditions. Ideal storage temperature is between 10 - 20 °C / 40 - 68 °F. Bring to a suitable working temperature before application. Tightly re-seal opened containers and use 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: RMA 10

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

	
KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen	
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AC820-V1-022013	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR4	
Fire behaviour	E _r -s1
Emission of corrosive substances	SR
Wear resistance to BCA	AR 0.5
Adhesive tensile strength	B 1.5
Impact resistance	IR 4



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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.