

KLB-SYSTEM ACRYL AC 320

Rapid-setting, flexibilised PMMA coating resin for smooth or partiColor®-Chips (flakes) scattered coverings

Packaging units



Article no.	Packaging	Content (kg)	Units/pallet
MA0014-50	Canister	10.00 kg	50
MA0014-25	Hobbock	25.00 kg	12
MA0013-01	Drum	200.00 kg	2

Product characteristics

Processing time	-5 °C / 23 °F : 25 min. 0 °C / 32 °F : 20 min. 5 °C / 41 °F : 18 min. 12 °C / 53.6 °F : 15 min. 20 °C / 68 °F : 13 min. 30 °C / 86 °F : 10 min.
Curing time (accessibility)	-5 °C / 23 °F : 3.0 - 3.5 hrs. 0 °C / 32 °F : 60 min. 5 °C / 41 °F : 55 min. 12 °C / 53.6 °F : 45 min. 20 °C / 68 °F : 30 min. 30 °C / 86 °F : 25 min.
Dosage of hardener	-5 °C / 23 °F : 6.0 % 0 °C / 32 °F : 6.0 % 5 °C / 41 °F : 5.5 - 6.0 % 12 °C / 53.6 °F : 3.5 - 4.0 % 20 °C / 68 °F : 2.5 - 3.0 % 30 °C / 86 °F : 2.0 - 2.5 %
Further coatings	After curing and accessibility
Consumption	1.1 - 2.2 kg/m ² for layers of 2 - 4 mm
Layer thickness	2.0 - 4.0 mm
Colours	Non-pigmented; for colouring use KLB pigments
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM ACRYL AC 320 is a flexible, reactively curing acrylic coating resin for producing mainly smooth flow coatings. For decoration, **partiColor®-chips** (flakes) may be used in an open or a full scattering. Coatings in dry areas have to be finished with **KLB-SYSTEM ACRYL AC 820**.

The coating is produced by adding hardener powder, pigment and mixed sand **KLB-Mischsand 2/1** in the recommended quantities, then applied with a coating knife onto the prepared substrate.

The product cures to a hard and tough synthetic with good usage properties. **KLB-SYSTEM ACRYL AC 320** is especially suitable for surfaces that have been completely scattered with decorative flakes. Usually, layers of 2 - 4 mm are applied.

KLB-SYSTEM ACRYL AC 320 can be exposed to hot water up to approx. 60 °C / 140 °F for a longer period of time and up to approx. 80 °C / 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. For industrial trucks, it is generally recommended to test the suitability as skid marks may become visible. **KLB-SYSTEM ACRYL AC 320**, 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!

Area of application

- Smooth plain-coloured or **partiColor®-Chips** (flakes) scattered areas with light or medium mechanical load.
- Production and storage areas in many economic sectors (2 mm coatings) with light mechanical load and only little requirements to the slip-resistance.
- For corridors, access balconies, basements, and other interior areas.
- For reconstruction areas with need for speedy solutions.

Product features

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

Technical data

Viscosity	280 - 400	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)
Abrasion (Taber Abraser)	50	mg	ASTM D4060 (CS10/1000)

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-koetzal.com

Tests

External test certificates are available:

- Slip resistance grade R11/V6 respectively V8 and R13/V6 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 partiColor®-Chips (flakes) in excess

- Apply primer **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 an even substrate, with e.g. **AC 320** and mixed sand **KLB-Mischsand 2/1**. Mixing ratio 1 : 2 parts by weight, consumption binding agent approx. 0.5 kg/m².
- Apply the base coat **AC 320** with mixed sand **KLB-Mischsand 2/1** with a rake, mixing ratio 1 : 2, in layers of 2 - 4 mm, consumption of resin approx. 0.550 kg/m² per 1 mm layer thickness.
- **Note:** it is recommended to colour the base coat with KLB pigments in the base colour of the decorative flakes mix, approx. 5 % -weight based on the binding agent content.
- Scatter completely with **partiColor®-Chips** (flakes) according to the desired colouring. Consumption approx. 0.4/0.5 kg/m².
- After curing, sweep and vacuum off any excess flakes, until no more flakes are released. Depending on the desired surface structure, it is possible to push off protruding chips beforehand with a metal floor scraper.
- Apply the non-pigmented sealer with a velour roller or a fine-notched rubber slider and re-roll subsequently in crosswise motion.
- Use **AC 820** for predominantly dry areas, and **AC 826** for areas exposed to water. Consumption in both cases: 0.4 - 0.5 kg/m². If necessary, apply two coats of the sealer.

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

- Apply primer **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 an even substrate, with e.g. **AC 320** and mixed sand **KLB-Mischsand 2/1**. Mixing ratio 1:2 parts by weight, consumption binding agent approx. 0.5 kg/m².
- Apply the base coat **AC 320** with mixed sand **KLB-Mischsand 2/1** with a rake, mixing ratio 1:2, in layers of 2 - 4 mm, coloured with KLB-Pigments, approx. 5 % weight based on the binding agent content.
- If desired: scatter slightly with **partiColor®-Chips** (flakes) depending on the desired colouring. Consumption approx. 0.02 - 0.04 kg/m².
- Apply a non pigmented sealer with a velour roller or a fine-notched rubber slider and re-roll subsequently with criss-cross strokes.
- **Note:** for a surface without a decorative flakes scattering, it is possible to use a coloured sealer, in this case it is required to add 10 % by weight of KLB pigment.
- Use **AC 820** for predominantly dry areas, and **AC 826** for areas exposed to water. Consumption in both cases: 0.350 – 0.450 kg/m². If necessary, apply two coats of the sealer with respectively reduced consumption.

Note: for the installation of plain-coloured, not scattered coatings with AC resins, it is possible for the surface structure to present some irregularities due to the material. Please ask for advice.

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. If installation is to be carried out at temperatures below -5 °C / 23 °F, please obtain separate advice.

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. If aggregates such as mixed sand or pigments are used to produce flow mortar, they can be stirred in first and the hardener powder added at the end. In the case of stiff-plastic mortar mixtures such as **AC 345 Hohlkehlenharz**, the hardener powder must be added and homogeneously stirred in before adding the additives.

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 substrate and spread it evenly with a toothed or spiked roller. Re-levelling with the spiked roller is usually not necessary with **AC 320** flow coatings. Adequate air circulation is necessary during and after processing for good curing. Insufficient air ventilation and static air layer may result in curing disturbances. Avoid draught. **Note:** curing is adjusted for a temperature range between -5 to 30 °C / 23 to 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 after use. 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 / 50 - 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,i/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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AC320-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-koetzal.com. In addition, our "General Terms and Conditions" apply.