

KLB-SYSTEM ACRYL AC 313

Rapid-setting, flexibilised PMMA coating resin for scattered coatings in wet areas

Packaging units



Article no.	Packaging	Content (kg)	Units/pallet
MA0001-52	Canister	10.00 kg	50
MA0001-25	Hobbock	25.00 kg	12
MA0001-02	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	1.6 - 2.5 kg/m ² for layers of 3 - 5 mm
Colours	Non-pigmented; for coloring use KLB pigments
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM ACRYL AC 313 is a flexible, reactively curing acrylic resin for producing base coats for coloured and natural sand scattered coatings.

The coating is produced by adding hardener powder, pigments for colouring and mixed sand **KLB-Mischsand 2/1** in different quantities, depending on the layer thickness of the covering. Scatter the base coat completely with coloured or natural sand. Apply e.g. **KLB-SYSTEM ACRYL AC 826** as finish sealer after removing any excess sand.

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. **KLB-SYSTEM ACRYL AC 313** is especially suitable for slip-resistant coatings in wet areas. Usually, layers of 3 - 5 mm will be applied; however, with mechanical load, e.g. by industrial trucks, 4 mm layers should be installed.

Coatings with **KLB-SYSTEM ACRYL AC 313** 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.

KLB-SYSTEM ACRYL AC 313, 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

- Especially for scattered, slip-resistant coatings in wet areas. For the food processing industry with requirements to water and chemical resistance.
- Pigmented carrier coat for decorative, coloured sand scattered coatings with subsequent sealing coats, like **AC 820**, respectively **AC 826**.
- Production areas and storage areas with light load, for many economic sectors (3 mm coatings). Scattered surfaces with smooth surface structure.
- Areas with increased mechanical load, e.g. production and storage areas in many economic sectors (5 mm coating).
- Adjusted slip-resistance according to the requirements.

Product features

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

Technical data

Viscosity	270 - 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	Ca. 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 H3KLB KITCHEN PMMA Standard
- System M2KLB INDUSTRIAL DECOR PMMA
- System M1KLB INDUSTRIAL PMMA RX

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 R10/V6 to 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

Slip-resistant coating scattered with coloured or natural sand (R10-R13)

- Apply the base coat **AC 20**, consumption approx. 0.350 - 0.450 kg/m², depending on the substrate. Loose 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 313** and mixed sand **KLB-Mischsand 2/1**. Mixing ratio 1 : 2 parts by weight, consumption binding agent approx. 0.5 kg/m². Consumption sand approx. 1.0 kg/m².

3 mm coating

- Apply base coat **AC 313** and mixed sand **KLB-Mischsand**. Mixing ratio: 1 : 2 parts per weight, consumption binding agent approx. 1.6 kg/m². Consumption of sand approx. 3.2 kg/m².

5 mm coating

- Apply base coat **AC 313** and mixed sand **KLB-Mischsand**. Mixing ratio: 1 : 2.5 parts per weight, consumption approx. 2.5 kg/m². Consumption of binding agent approx. 2.5 kg/m². Consumption of sand approx. 6.25 kg/m².
- **Note:** for scattering with colored quartz sand, it is recommended to pigment the base coat with KLB pigments in a similar colour tone. Consumption approx. 5 % per weight based on binding agent content.
- Scatter completely with coloured or natural quartz sand in excess, optimum grain size 0.7/1.2 mm or 0.3/0.8 mm, consumption approx. 4 - 5 kg/m².
- After curing, sweep and vacuum off any excess sand, until no more sand is released.
- Apply the top sealer **AC 820**, respectively **AC 826**, non-pigmented when using coloured sand and pigmented with natural sand (pigment consumption approx. 10 % per weight based on binding agent content) with a rubber squeegee; then re-roll subsequently with a velour roller in crosswise motion. Consumption approx. 0.5 kg/m². If necessary, apply two coats of the sealer.
- It is mandatory to keep within the recommended consumption for the slip-resistance and required properties.

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. After a short time, deaerate with the spiked 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. 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,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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AC313-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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