KLB-SYSTEM ACRYL
AC 356

Rapid-setting, highly elastic 2-component PMMA grouting resin for building, connection, industrial or movement joints that are load-bearing, deformable and can be driven over.

Packaging units

Article no.	Packaging	Inhalt	Units/pallet
MA0033-50	Bucket	10.00 kg	30
MA0033-25	Hobbock	25.00 kg	12

Product characteristics

Processing time	20 °C / 68 °F : 10 - 15 min.
Processing temperature	Minimum 5 °C / 41 °F - Maximum 30 °C / 86 °F (room and floor temperature)
Curing time (accessibility)	1 - 2 hours until it is grindable at 20 °C / 68 °F
Dosage of hardener	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 %
Curing	24 hours until mechanical load at 20 °C / 68 °F 3 days until chemical load at 20 °C / 68 °F
Consumption	(resin with 50% of mixed sand KLB 2/1) approx. 1.65 kg/l (resin with 75% of mixed sand KLB 2/1) approx. 1.8 kg/l
Colours	Grey
Shelf life	6 months (originally sealed)

Product description

KLB-SYSTEM ACRYL AC 356 is a reactive, highly elastic PMMA grouting compound which is used for producing accessible floor joints. The grouting resin is rapid-setting and requires only short installation times. It can be applied in thick layers in block casting and ground level with the floor after only a short time.

KLB-SYSTEM ACRYL AC 356 is suitable for grouting building components, connection, industrial and movement joints in layer thicknesses of 5 - 30 mm in one grouting. Due to its deformability, the movement of structural components can be absorbed, while the building joints can still be driven or rolled over. Shocks and impacts of conventionally installed joint profiles are avoided in the case of vehicular traffic. **KLB-SYSTEM ACRYL AC 356** suits application in storage, commercial or industrial facilities as well as for accessible joints on parking decks, underground parking, and much more.

KLB-SYSTEM ACRYL AC 356 has a medium viscosity and is adjusted with a very pourable consistency; the processing time is short, as with all PMMA resins. The joint can already be ground down to the level of the floor after 1 to 2 hours (at 20 °C / 68 °F) using a suitable grinding machine. The resin hardens in layer thicknesses of 5 to 30 mm with little shrinkage. Higher thicknesses must be laid in several layers. Depending on the area of application, joint width, mechanical requirements and therefore, desired elasticity, the product can be individually adjusted by filling it with mixed sand **KLB-Mischsand 2/1**. To improve the visual impression of the joints,

a sealing layer with **KLB-SYSTEM POLUYRETHAN PU 9018 Flex Color** can be applied.

KLB-SYSTEM ACRYL AC 356 is sufficiently hard/elastic within 24 hours, thus resistant to mechanical and also abrasive loads that occur in normal industrial traffic, e.g. with floor conveyors.

The joint has good chemical resistance to water, aqueous solutions, diluted acids, glycol and petrol under normal use. Conditional resistance to solvents.

Area of application

- Elastic grouting of component or building joints or as alternative to conventional metal profiles.
- Drive-over bonding of concrete slabs in industrial halls and thus, allowing the formation of joints that are gentle on people and vehicles.
- For all factory, storage and work facilities as well as driving and parking areas with intensive foot traffic.
- For building, connection, industrial and movement joints.

Product features

- rapid-setting
- highly elastic
- quickly accessible
- low-shrink
- resistant to water and chemicals
- impervious to fluids
- resistant to weather

Technical data

Viscosity	approx. 800 - 1000	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Density	approx. 1.35 (unfilled)	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Tensile strength	approx. 4.3 (filled with 50% mixed sand KLB 2/1), approx. 2.8 (filled with 75% mixed sand KLB 2/1)	N/ mm²	DIN 53504
Elongation at break	approx. 160 (filled with 50% mixed sand KLB 2/1), approx. 90 (filled with 75% of mixed sand 2/1)	%	DIN 53504
Shore-hardness A	Ca. 82 (gefüllt mit 50 % KLB 2/1)	-	DIN 53505 (after 7 days)
Shore-hardness D	Ca. 25 (gefüllt mit 50 % KLB 2/1)	-	

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

Build-up of coats

Prepare the joints between the concrete slabs mechanically. Existing joints must be dismantled. If necessary, the joint profile is to be chiselled out and reprofiled using a mortar out of **AC 356** and mixed sand **Mischsand 1.** Here, the dimensions must be created in a way that there is sufficient deformation distance between the building components in accordance with their expected movements, so that enough adhesion is provided to the two joint flanks. An elastic separating profile is to be inserted into the substrate. The exposed joint deformation section must be sufficiently dimensioned so that the expansions/deformations can be absorbed.

Grouting of accessible joints

- Prime the joint flanks with **AC 20**, consumption approx. 0.35 - 0.45 kg/m².
- Optional: openly sanding the fresh surface with quartz sand 0.7/1.2 mm, consumption approx. 0.5 - 1.0 kg/m².
- If necessary, reprofile break-outs with a mortar consisting of **AC 356** and mixed sand **Mischsand 1** in a mixing ration of 1 : 4 parts by weight. It is possible to lay the mortar wet-in-wet into the primer.
- After the mortar has hardened, the closed joint is opened again by a separating cut, and a closed-cell PE round cord of suitable width is inserted to prevent three-flank adhesion.
- After curing, the elastic grouting mortar filled with 50 - 75% of mixed sand **Mischsand 2/1** can be poured in (depending on driving load and joint movement), so that a slight excess of the material remains (for 1 - 2 mm).
- **Important note:** we do not recommend higher filling than 75%, as this reduces the mechanical properties of the block joint.
- Grind the filled joint flat with the surface of the concrete slab/coating after 1 - 2 hours using a concrete grinder with diamond or PCD cup (depending on the desired grinding effect).
- Apply the optional sealing layer with **PU 9018 Flex Color**, consumption approx. 0.40 - 0.55 kg/m².

Substrate

The component/substrate to be grouted 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 (ZE30) as well as other sufficiently solid substrates. The substrate has to have adequately high strength for the intended occupational use and be dimensioned. 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 4.0 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.

The surfaces to be coated must be primed with AC 20.

Mixing

Depending on the temperature, add the required amount of hardener to the resin component **AC 356** (15 - 20 g of hardener powder at 20 °C / 68 °F) and stir carefully until a homogeneous mixture is obtained. For joint grouting, it is recommended to add the hardener powder after the mixed sand. For mortar, it is recommended to add the hardener powder before the mixed sand.

Addition of filling sand for joint grouting

10 kg AC 356
5 - 7.5 kg of mixed sand KLB-Mischsand 2/1
Important note: when industrial trucks are supposed to drive on the floor, it is mandatory to use 7.5 kg of sand (75%).

Producing mortars

10 kg AC 356
40 kg of mixed sand KLB-Mischsand 1

Premix the binding agent before adding any additives, only then can be poured in the additive. The amount of mixed sand depends on the necessary consistency and stability. Then process immediately.

Processing	The joints are cut/chiselled out according to the desired joint profile and freed from loose material. If necessary, clean the joint edges with thinner, e.g. **VR 119**. Then insert a closed-cell PE round cord of suitable joint width to prevent three-flank adhesion. Prime the joint edges with **AC 20** and, if needed, scatter openly quartz sand 0.7/1.2 mm. In case of mortared joints, too deep joint cross-sections or uneven substrates, reprofile the joint with a mortar made of **AC 356** and mixed sand **Mischsand 1**. To do so, apply the mortar to the pre-primed joint within a few minutes using a smoothing trowel or another suitable smoothing tool. After 30 - 60 minutes, make a separating cut and insert sealing tape. The mortar can be recoated with **AC 356** without further priming. The pre-primed joint is then filled with the mixture of **AC 356** and mixed sand **Mischsand 2/1.** Pour the fresh mixture into the joint and spread the material evenly. Fill with excess. For increased layer thicknesses (> 30 mm), a second grouting may be necessary. After hardening (approx. 1 - 2 hours), the excess material can be removed, e.g. with a concrete grinder incl. diamond cup. A finish grinding might be required using an eccentric grinder. When doing so, grind in a way that the joint is even with the floor surfaces on both sides. After sanding, a sealing layer with **PU 9018 Flex Color** can be applied, when needed. Floor and air temperature must not fall below 5 °C / 41 °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. **Note:** PMMA resins are highly flammable and subject to the Ordinance on Hazardous Substances. Observe the instructions in the safety data sheet and on the container!
Cleaning	To remove fresh contamination and to clean tools, use thinner **VR 119** immediately.
Storage	Store in dry and at frost-free conditions. Ideal storage temperature is between 10 - 20 °C / 50 - 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: 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.

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

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