KLB-SYSTEM ACRYL
AC 358

Rapid-setting acrylic resin mortar for renovation and repair works at lower temperatures from -30 °C / -22 °F up to 0 °C / 32 °F

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AK0022-17	Combo packaging	25.00 kg	40

Product characteristics

Mixing ratio parts by weight	A : B = 1 parts by weight resin : 8 parts by weight powder
Processing time	-30 °C / -22 °F: 30 min. -25 °C / -13 °F: 25 - 30 min. -20 °C / -4 °F: 20 - 25 min. -10 °C / 14 °F: 15 - 20 min. 0 °C / 32 °F: 10 - 15 min.
Processing temperature	Minimum -30 °C / -22 °F - Maximum 0 °C / 32 °F (room and floor temperature)
Curing time (accessibility)	-30 °C / -22 °F: 4 - 5 hrs. -25 °C / -13 °F: 3 - 4 hrs. -20 °C / -4 °F: 2- 3 hrs. -10 °C / 14 °F: 1.5 - 2 hrs. 0 °C / 32 °F: 1 - 1.5 hrs.
Further coatings	3 - 4 hours at -25 °C / -13 °F
Consistency	Mortar consistency
Consumption	2 kg/m² for 1 litre of volume 12 kg/m² for 6 mm layer thickness
Colours	Grey (similar to concrete)
Shelf life	6 months (originally sealed)

Product description

KLB-SYSTEM ACRYL AC 358 like **KLB-SYSTEM ACRYL AC 357** is a ready-to-use 2-component acrylic resin mortar which is adjusted for processing temperatures between -30 °C / -22 °F and 0 °C / 32 °F.

KLB-SYSTEM ACRYL AC 358 is therefore used for reconstruction work and for lower temperatures, like in cold storage rooms, deep freezer rooms, or at low surrounding temperatures.

With a processing time of 10 - 20 minutes, the mortar can resist mechanical load after 3 - 4 hours at -25 °C / -13 °F.

KLB-SYSTEM ACRYL AC 358 is used as repair and mortar coating for areas with mechanical load where a fast return to the use of the floor is important. Usually, the mortar is being applied in layers of 5 - 15 mm. It is recommended to add fire-dried quartz sand for an increased thickness of layers. See the section about mixing! The mortar cures shrinkage-free and achieves high bending tensile and compressive strength. The product is suitable for traffic areas, for the repair of commercially and industrially used areas, for the rigid sealing of joints, holes in the asphalt, connecting ramps and so on, for interior and exterior use.

Important note: **KLB-SYSTEM ACRYL AC 358** is a specially accelerated version of **KLB-SYSTEM ACRYL AC 357**. Use only for temperatures from 0 °C / 32 °F up to -30 °C / -22 °F. Before processing, cool the material down to at least 0 ° C / 32 °F.

Area of application

- For production, storage, and working areas.
- For vehicle traffic and parking areas.
- Bedding layer for subsequent coatings.

For use in exterior areas at temperatures below 0 °C / 32 °F

- As area and repair mortar for cold storage rooms and areas with low surrounding temperature.
- Exterior areas and many more.

Product features

- rapid-setting from -30 °C to 0 °C/-22 °F to 32 °F
- quickly accessible
- for renovations and repair works
- ready-to-use
- low-shrink
- good resistance to water and chemicals
- high mechanical resistance

Technical data

Solid content	100	%	KLB method
Density - Component A+B	2.01	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Water absorption	< 0.2	weight-%	DIN 53495
Bending tensile strength	> 22	N/mm²	DIN EN 196/1
Compressive strength	> 80	N/mm²	DIN EN 196/1
Shore-hardness D	80	-	DIN 53505 (after 7 days)
Flashpoint	Component A: 11 °C / 51.8	°F	DIN 51755

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

Tests

- Product is compliant with DIN EN 13813: 2003-01.

Build-up of coats

- Prime with **AC 20**, consumption 0.4 kg/m², open scattering with quartz sand 0.7/1.2 mm.

Important note: **AC 20** has to be accelerated when working at temperatures below 0 °C / 32 °F.
Use **AC-Beschleuniger 10** and ask for advice.

- Apply the mortar in layers of 5 - 15 mm.

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 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. 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. Prime the surfaces to be coated with **AC 20** while adding the required amount of accelerator **AC-Beschleuniger 10**, then scatter openly with quartz sand 0.7/1.2 mm.

Mixing

Components A and B are supplied in aligned mixing ratios 1 : 8. 1 kg binding agent (fluid) is being blended with 8 kg of powder (component B). Depending on the desired consistency, 7.5 kg - 9.0 kg of powder (component B) can be added. Adding 7.5 kg of powder results in a very pourable mortar, adding 9 kg of powder makes it more mouldable. **To ensure a completely cured material, stay within the recommended amounts of additives!**

Use a compulsory mixer for blending the components. The mixing time depends on the intensity of the mixer and should take approx. 1 - 2 minutes. If quartz sand is added for filling large holes, this is done after the addition of powder component B.

Additive recommendations:

For layers up to 15 mm:
Without adding sand

For layers 15 to 30 mm:
10 - 12 kg of dried quartz sand (3 - 5 mm)
for each 25 kg unit of **AC 358**.

For layers 30 to 50 mm:
4 - 4.5 kg dried quartz sand (3 - 5 mm) and
8 - 9 kg quartz sand (5 - 8 mm)
for each 25 kg unit of **AC 358**.

Apply immediately after mixing.

Processing

AC 358 is suitable for processing and application temperatures below 0 °C / 32 °F. **AC 357** is recommended for temperatures above 0 °C / 32 °F.

Distribute the fresh mixture in small quantitites on the floor and smooth out with a coating knife or trowel. For flat applications, it is recommended that the mortar is drawn off and smoothed in with gauges. However, the areas must then be limited because of the rapid curing.

The soil and air temperature must be within the recommended temperature range. The material temperature may be above the floor temperature, but the temperature difference should not exceed approx. 10 °C / 50 °F. A dew point must be avoided.

Floor and air temperature must not fall below -30 °C / -22 °F. The specified curing times apply for -25 °C / -13 °F; temperatures below this require longer processing and curing times, while higher temperatures require shorter times.

Cleaning

To remove fresh contamination and to clean tools, use thinner **VR 119** immediately. Hardened material can only be removed mechanically.

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

CE

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DIN EN 13813:2003-01

Synthetic resin screed mortar
DIN EN 13813: SR-B1.5-AR0.5-IR4

Fire behaviour	E_{fl}-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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