EPOKATE LAKK

Art.-No. 06-S03

A two-component solvent-free epoxy resin system for varnishing concrete floors and applying a varnish or impregnation coating to epoxy resin floorings built on the trowelled screed technology.

Properties

EPOKATE LAKK is a low-viscous solvent-free, transparent two-component epoxy resin system. Once cured, the varnish is very hard and has an excellent gloss and resistance to abrasion.

Areas of application

EPOKATE LAKK can be used:

- for varnishing/impregnating epoxy resin-based trowelled screed flooring;
- for varnishing concrete substrates to improve abrasion resistance and cleanability and to prevent the dispersion of concrete dust, e.g. in warehouse halls or docks.

Technical data

Basis:	two-component epoxy resin (A/F)
Colour:	colourless
Viscosity (+23° C):	*approx. 450 mPa·s (± 80)*
Density (+23°C):	1.10 g/sm³
Adhesion strength:	B1.5 according to standard EVS-EN ISO 13892-8:2002
Wear resistance:	AR1 according to standard EN 13892-4
Impact resistance:	IR2 according to standard EN ISO 6272
Bending tensile strength:	F5 according to standard EN ISO178
Mixture ratio (resin : hardener):	100 : 45 parts by weight
Pot life (+23° C):	35 - 45 min
Minimum cure temperature:	+10° C
Overcoating time (+23° C):	8 hours to max 24 hours
Fully cured (+23° C):	7 days
Tensile strength:	exceeds the tensile strength of concrete several times
Cleaning:	clean tools immediately with a suitable epoxy resin solvent.
Packaging:	20 kg
Storage:	18 months when stored in unopened original container under dry conditions at +10 ... +30 °C. Observe regulations for the storage of potential soil and groundwater pollutants.

Note:

At low temperatures, the product may crystallise and turn into an opaque, grease-like mass. Such product can be used within two hours of defrosting in a water-bath at 50…60° C.

Requirements to the surface being coated:

The concrete surfaces should be:

- dry, hard and load-bearing;
- free of dust, loose particles, oil and grease;
- protected against moisture penetrating or rising from beneath the concrete surface;
- strength min C20/25;
- min 28 days old;
- tensile strength ≥ 1.5 N/mm²;
- moisture content below 4%.

The recommended surface treatment methods are sand or bead blasting, diamond grinding or milling.

Product preparation

Component A (resin) and component B (hardener) are delivered in the predetermined mixing ratio. Ensure that the hardener drains completely from its container to the resin container. Mixing of the combined resin system is to be carried out with a suitable mixer for approx. 2 minutes at 300 rpm, mixing both from the bottom and edges of the container. It is important to ensure the hardener is evenly dispersed in the resin component. The minimum temperature during mixing should be +12° C. Decant the mixed material into a larger container and mix through once again for approx. 1 minute. The sand and other fillers added to the mixed material should be dry and at a temperature of min. +12° C.

Methods of application and norms for consumption

1. Varnish and impregnant for trowelled screed

Once 16 up to a maximum of 24 hours have passed from the application of a levelled and packed trowelled screed layer, remove any loose sand grains. Combine the EPOKATE LAKK varnish and hardener. In case of vertical or steeply sloping surfaces, a thixotropic agent (e.g. Sylothix) should be added to the mixture at a rate of 2-5% by weight, depending on the steepness of the slope. Apply the varnish to the surface and let the product impregnate the trowelled screed layer. Make sure that the coated surface is always saturated with the product and there are no apparent dry spots. After 20-25 minutes, remove any excess product with a soft rubber spatula. Consumption norms per 1 mm of layer thickness are presented in the following table.

Norms for consumption:	
EPOKATE LAKK	300 - 320 g/m² per one mm of layer thickness

2. Concrete varnish

To prepare the concrete varnish, combine the EPOKATE LAKK resin and hardener. In case of vertical or steeply sloping surfaces, a thixotropic agent (e.g. Sylothix) should be added to the mixture at a rate of 2-5% by weight, depending on the steepness of the slope. Apply the resin system to a polished and cleaned concrete surface in one layer. Next day, once the varnish coating has hardened, assess the results and, if necessary (in case spots with irregular gloss emerge), repeat the varnishing procedure. Add a roughening spread (dry quartz sand) to

the uncured first coating to achieve a slip-resistant surface texture. Consumption norms per 1 mm of layer thickness are presented in the following table.

Norms for consumption:	
EPOKATE LAKK 1st coating	300 - 500 g/m²
EPOKATE LAKK 2nd coating	100 - 250 g/m²
Roughening spread (ø 0.4-0.8 / 0.5-1.0 mm grain)	0.6 - 1.2 kg/m²

Health and safety

EPOKATE KRUNT is epoxy resin system with no added solvents. As the product is based on an epoxy resin it may cause irritation and even hypersensitivity (allergy) upon skin contact. Hence, suitable protective equipment should be worn while the product is in liquid form to avoid contact with skin. Once reacted (cured), the product is completely harmless. Component B (hardener) is caustic. When handling and working with the product, please observe the safety requirements detailed in the Material Safety Data Sheet. All government health and environmental regulations and directives must also be followed. Product residues are to disposed of under the waste disposal code (epoxy resin).

Notes:

- The temperature of the product, environment and substrate should be at least 12 °C, or at least 3 °C above the dew point temperature. Relative humidity must not exceed 80%.
- The bond between individual coats can be affected by the presence of dust or moisture.
- In case the interval between application of coats is longer than 48 hours, the substrate must be abraded and cleaned thoroughly and a new pore-sealing primer coating must be applied. It is not enough to simply overcoat.
- A fresh coating should be isolated from flowing water and dampness for approx. 12 hours. Dampness in the curing phase of the varnish produces white pigmented spots (carbonisation spots) or unhardened surface. Carbonisation does not affect the strength or durability of the product. However, it does influence its appearance and cleanability. In such circumstances, the product EPOKATE LAKK-3 should be used for varnishing.
- Higher temperatures shorten the pot life and accelerate the curing process, whereas lower temperatures increase the pot life and curing time.
- Material consumption rate is also increased at lower temperatures.
- EPOKATE LAKK's temperature resistance is about 65 °C.
- Applications that are not specified in this Technical Data Sheet may only be carried out after consultation with and written approval of the Technical Services Department of Epokate OÜ.
- Epokate OÜ assumes no responsibility for any consequences of a misuse of this product, as the post-market usage and storage conditions of the product are beyond our control.

CE

Epokate OÜ

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EN 13813 SR-B1,5-AR1-F10-IR2

Epoksüvaik põrandakattesüsteem EPOKATE LAKK

Adhesion strength	≥B1,5
Fire resistance	F
Wear resistance	AR1
Bending tensile strength	F10
Impact resistance	IR2

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