

## EPOKATE SL

Art.-No. 11-S10

A pigmented two-component solvent-free epoxy resin flooring system of wide use.

### Properties

EPOKATE SL is a pigmented, self-levelling, two-component epoxy-resin flooring material that resists high mechanical and chemical loads. It is easy to apply vertically and has very good self-levelling properties. Once cured, the floor coating has a glossy surface and is highly resistant to wear and easy to clean.

The standard colours that can be ordered are as follows, based on the RAL chart: 1002, 7001, 7023, 7032, 7035, 7038 and 7040. Other colours can be produced as a special order in batches of min. 300 kg.

### Areas of application

EPOKATE SL can be used:

- in production and storage areas, workshops, garages, halls and corridors;
- in agricultural facilities, food production areas, and in barns as a feedlot flooring material.

### Technical data

Basis:	two-component epoxy resin (A/F)
Colour:	Colourless
Viscosity (+23° C):	<i>approx. 1600 mPa·s (± 80)</i>
Density (+23° C):	mixed ca 1.55 g/sm <sup>3</sup>
Surface hardness (Shore D):	SH70 according to standard EN 13892-6
Pressure resistance:	C35 according to standard EN 13892-2
Bending tensile strength:	F10 according to standard EN ISO178
Wear resistance:	AR2 according to standard EN 13892-4
Adhesion strength:	>B1.5 according to standard EVS-EN ISO 13892-8:2002
Impact resistance:	IR13 according to standard EN ISO 6272
Mixture ratio (resin : hardener):	100 : 20 parts by weight
Pot life (+23° C):	25 min
Minimum cure temperature:	+10 °C
Overcoating time (+23° C):	8 hours to max 12 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:	25 kg
Storage:	18 months when stored in unopened original container under dry conditions at +12 ... +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 maintenance, 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  $\geq 1.5 \text{ N/mm}^2$ ;
- 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  $+12^\circ \text{ C}$ . 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.  $+12^\circ \text{ C}$ .

## Methods of application and norms for consumption

### 1. Self-levelling thick coat – EPOSYST SL

First, prime the substrate with EPOKATE KRUNT and apply a bonding spread (see EPOKATE KRUNT technical datasheet). Apply the self-levelling thick coat to a previously primed substrate. To prepare the self-levelling thick coat, combine the EPOKATE SL resin and hardener and add quartz sand according to the mixing ratios given below. 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.

EPOKATE SL	25 kg
Quartz sand ( $\emptyset$ 0.1-0.3 mm grain)	0...12,5 kg

Apply the self-levelling thick coat with a notched trowel or squeegee that ensures uniform layer thickness. Air with a spike-tooth roller 30-50 minutes after application. Consumption norms per 1 mm of layer thickness are presented in the following table.

Norms for consumption for 1 mm thickness:	
EPOKATE SL	1.3-1.5 kg/m <sup>2</sup> /mm
Quartz sand ( $\emptyset$ 0.1-0.3 mm grain)	0...0.75 kg/m <sup>2</sup> /mm

## Health and safety

EPOKATE SL 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 be 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.
- The minimum coating thickness of EPOKATE SL is 1 mm.
- Subtly covering colours, such as yellow, red or orange, appear transparent, based on experience.
- Mechanical friction produces wear marks and abrasion. This should be taken into account with the desired lifetime.
- In case of connected surfaces, use product with the same lot number, as lots may vary slightly by colour, gloss and texture. Colour corrections on the surface and treatment of existing surfaces may result in visible transitions between hues and textures.
- EPOKATE SL colours are not stable under UV radiation and weather impact and may turn yellow. This does not affect the strength or durability of the product. However, it does influence its appearance and cleanability. Hence, it is recommended to always cover EPOKATE SL with a finishing resin coating system.
- 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. 8 hours. Dampness in the curing phase produces a white discolouration and unhardened surface.
- 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 SL'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.

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