

EPOKATE KRUNT

Art.-No. 05-S01

A two-component solvent- and nonylphenol-free epoxy resin system for priming concrete surfaces and preparing scratch-sealing mortars and levelling compounds.

Properties

EPOKATE KRUNT is a low-viscous nonylphenol-free, solvent-free, transparent two-component epoxy resin system. The product has excellent concrete penetration capacity. Once cured, the resin system is very hard, waterproof, and resistant to salts and several chemicals, such as diluted acids and bases, oils and fuels. EPOKATE KRUNT yellows under UV radiation.

Areas of application

EPOKATE KRUNT can be used:

- for priming cement floors which are to be coated with epoxy resin flooring systems;
- for preparing self-levelling coats for smoothing uneven concrete substrates;
- as a bonding agent in scratch-sealing mortars for smoothing out and filling large irregularities in a concrete substrate.

Technical data

Basis:	two-component epoxy resin (A/F)
Colour:	transparent, slightly yellowish
Viscosity (+23° C):	<i>approx. 240 mPa·s (± 80)</i>
Density (+23°C):	mixed 1.09 g/sm ³
Adhesion strength:	>B1.5 according to standard EVS-EN ISO 13892-8:2002
Mixture ratio (resin : hardener):	100 : 48 parts by weight
Pot life (+23° C):	30 - 40 min
Minimum cure temperature:	+8° 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, 32 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 laitance, 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. Primer

To prepare the primer, combine the EPOKATE KRUNT resin and hardener, apply to the surface and fill the pores in the substrate by rolling over them. Apply a bonding spread (dry quartz sand) on the fresh, uncured primer layer. Before applying a new coating, make sure to remove any loose sand grains that did not bond with the primer layer. Consumption norms per 1 mm of layer thickness are presented in the following table.

Norms for consumption:	
EPOKATE KRUNT	300-500 g/m ²
Quartz sand (\emptyset 0.1-0.3 / 0.4-0.8 mm)	<i>approx. 1.0 kg/m²</i>

2. Self-levelling compound

First, prime the substrate with EPOKATE KRUNT and apply a bonding spread (see Section 1). To prepare the self-levelling compound, combine the EPOKATE KRUNT 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 KRUNT	1.0 kg
Quartz sand (\emptyset 0.1-0.3 mm grain)	0.3...0.6 kg

Apply the self-levelling compound on the cured primer with a notched trowel. Add a roughening spread (dry quartz sand) to the levelling compound 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 KRUNT	800 g/m ² /mm
Quartz sand (ø 0.1-0.3 mm grain)	240...480 g/m ² /mm
Roughening spread (ø 0.4-0.8 / 0.8-1.2 mm)	<i>approx. 2.5–3.5 kg/m²</i>

3. Scratch-sealing mortars

First, prime the substrate with EPOKATE KRUNT and apply a bonding spread (see Section 1). To prepare the scratch-sealing mortar, combine the EPOKATE KRUNT resin and hardener. Pour the quartz sand into a horizontal mixer (preferably) and add the homogenised resin system (mixed resin and hardener) during the mixing, observing the mixing ratio given below. Make sure that the filler material and binder are thoroughly combined.

EPOKATE KRUNT	1.0 kg
Quartz sand (ø 0.3-1.5 mm grain)	8...12 kg

Apply the scratch-sealing mortar on the primer in a 3 mm layer, level out, and pack immediately with the help of a trowel or grinder. Consumption norms per 1 mm of layer thickness are presented in the following table.

Norms for consumption:	
EPOKATE KRUNT	200 g/m ² /mm
Quartz sand (ø 0.3-1.5 / 0.3-3.0 mm)	2 kg/ m ² /mm

4. Stopping

The stopping can be used to seal smaller cracks and holes in concrete, as well as to apply the primer on vertical surfaces. To prepare the stopping, combine the EPOKATE KRUNT resin and hardener and add a thixotropic agent (e.g. Sylothix) according to the mixing ratios given below. Make sure that the filler material and binder are thoroughly combined.

EPOKATE KRUNT	1.0 kg
Thixotropic agent	20...50 g

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 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.
- 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 KRUNT tends to yellow under UV radiation and to carbonise (turn dull white on the surface) in long-term damp conditions. 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 KRUNT with a finishing resin coating system.
- EPOKATE KRUNT'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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