SILIKAL® PU Concrete M

Polyurethan concrete screed (6 – 9 mm), low odour

SILIKAL® PU Concrete M is a 4-component, solvent-free, polyurethane concrete screed product. It is used as a heavy duty, hard wearing coating system with outstanding mechanical an thermal resistance. Installation thickness 6 – 9 mm.

Properties

- Easy to apply
- High compressive strength
- High mechanical resistance
- Heat resistant to 120 °C
- Low odour during application

Fields of application

- For cementitious screeds and concrete substrates in indoor areas
- For medium to high mechanical loaded areas with a simultaneous chemical and/ or thermal load.

Technical Data

Components	Resin (Comp.-A): 2.5 kg Hardener (Comp.-B): 2.5 kg Silikal Filler M: 19.6 kg Pigment powder: 0.5 kg
Density of the mixture	2.10 kg/l
Minimum curing temperature	+10 °C (temperature of the substrate The temperature of the substrate should exceed the dew point by 3°C!
Recommended application temperature	+15 to +25 °C
Application time (Pot life) at +20 °C	max. 15 min
Curing time at +20 °C	- walk on – after 16 h - light traffic – after 24 h - fully cured after 7 days
Consumption 6 mm layer thickness 9 mm layer thickness	12.6 kg/m² 18.9 kg/m²
Temperature resistance: 6 mm (9 mm)	Permanent load: 80 °C (90 °C) Short time load: 95 °C (120 °C)
Compressive strength	> 50 N/mm²
Tensile strength	10 N/mm²
Flexural strength	20 N/mm²

High temperatures shorten, low temperatures prolong all times indicated. A change in the consistency and consumption must be taken into account. A temperature change of 10°C leads in general to halving or doubling of the times indicated

Pre-treatment of substrate

Cement bound substrates must be sound, dry, free from laitance and loose particles, oil, dust and grease. Laitance must be removed either by shoot blasting or grinding. See “General Technical Data Sheet for Pre-treatment of substrate”. Remove dirt and other substances which act as a parting agent. Obey a sufficient drying time after cleaning. Carry out a tensile bond test if necessary before application of the coating.

The adhesive tensile strength of the substrate must have a minimum of 1.5 N/mm².

Additionally the moisture content of the surface to be coated must be lower than 4.5 % parts by weight.

Instruction of use

SILIKAL® PU Concrete M is delivered in pre-weighted component to suit a full mix. Do not split the components.

Use a suitable sized container and add all of the Hardener (Comp.-B) to the resin (Comp.-A). Mix for 30 seconds before adding the Filler (Comp.-C) and the pigment powder (Comp.-D). Ensure that the filler and the pigment are mixed in from the sides of the container and mix for 3 minutes to ensure an homogenious mixture with good rheological properties. Take care to mix each unit for an equal amount of time, otherwise colour variances could occur.

Silikal GmbH
Ostring 23 D-63533 Mainhausen
+49 (0) 61 82 / 92 35-0 +49 (0) 61 82 / 92 35-40
www.silikal.de @ mail@silikal.de

Before the next mix, scrape out any residual material from the mixing vessel and dispose of before starting the next mix; otherwise the working time of the following mix could be reduced.

The mixed product should be poured out evenly over the floor and then applied to the desired thickness with a pin rake. Set the rake to 10 mm to obtain a coating thickness of 9 mm, or 7 mm to obtain a coating thickness of 6 mm. A broad metal spatula or trowel can be used to remove the traces of the rake or joins between mixes. The product is very fluid so just the edge of the tool is used to avoid stickiness.

Further finishing can be done by lightly rolling the surface with a spike roller to even out the surface and reduce trowel marks. Excessive rolling reduces texture and can lead to pin holes in the resin rich surface.

Finishing must be completed as quickly as possible and within 5 minutes after the material has been applied.

The temperature should be at least 15 °C to achieve the best results during application. The temperature of the substrate should be at least 10 °C, although a temperature of 15 – 25 °C is recommended.

The temperature of the substrate should exceed the “dew point” by more than 3 °C during application and hardening.

Coating system

1. Pre-treatment of the substrate
2. Priming with SILIKAL® RE 55 (only in case of a high absorbent substrate)
3. Coating with SILIKAL® PU Concrete M

Packaging and colours:

SILIKAL® PU CONCRETE M is delivered in 25.1 kg units consisting of:

- Resin (Comp.-A): 2.5 kg
- Hardener (Comp.-B) 2.5 kg
- Filler M (Comp.-C): 19.6 kg
- Pigment (Comp.-D): 0.5 kg

Colours: Grey, Green, Red, Ochre

Light fastness and weather resistence

SILIKAL® PU Concrete M tends to yellow when exposed to UV-light.

Shelf life

Use within 6 months of purchase. Store in unopened containers at temperatures between +10 °C – +25 °C.

Store in dry conditions.

Silikal GmbH

✉ Ostring 23 D-63533 Mainhausen
✆ +49 (0) 61 82 / 92 35-0 ✆ +49 (0) 61 82 / 92 35-40
🌐 www.silikal.de @ mail@silikal.de