

SILIKAL® RE 513 is an electrically conductive, solvent-free 2-component intermediate coat for conductive floor coatings.

Properties

- Highly conductive
- Solvent-free
- Spreadable
- Easy to process

Areas of application

- As a conductive layer in combination with conductive coating systems such as SILIKAL® RE 514 or SILIKAL® RU 303, moderate to high mechanical stresses in areas in which an antistatic or conductive floor is required
- For suitably primed cement-bonded substrates or mastic asphalt
- For interiors

Technical data

Mixing ratio	Component A (resin) = 1 part by weight Component B (hardener) = 5 parts by weight
Specific weight (mixture)	1.08 kg/l
Solid content	> 40 weight % (works standard)
Minimum hardening temperature	+15 °C (room and floor temperature) Note the dew point!
Optimum processing temperature	+15 to +25 °C
Pot life at +20 °C	60 min
Curing time at +20 °C	- Treatable/resistant to work/foot traffic – after 18 – 24 hours - Resistant to light mechanical stresses – after 2 – 3 days - Fully resistant to chemical and mechanical stresses – after 7 days
Consumption	0.12 – 0.15 kg/m ²
Electrical resistance to ground (DIN IEC 61340-4-1/-5-1/2)	< 10 ⁵ Ω (Ohms)

High temperatures reduce and low temperatures lengthen all times given. The consistency, degree of filling and consumption will vary. Generally a temperature change of 10 °C will result in the times given halving or doubling.

Substrate

The substrate to be coated must be load-bearing, free of dust, oil and grease and from substances which could act as releasing agents.

Advice on application

Components A and B are supplied in the correct ratio for mixing. The entirety of the resin (comp. A) is added to the basic component (comp. B). Mixing is done by a machine (agitator at 200 - 400 rpm) and should last for at least 3 minutes until a homogeneous, non-streaky mixture is obtained. The mixed material must be poured into a clean pail and mixed again briefly. Optimum processing consistency can be achieved by adding up to 10 % water after mixing.

The material is applied sparingly and evenly with a roller.

Do not apply at temperatures below +15 °C and with relative humidity above 75 %.

To ensure good air exchange (dry air), provide ventilation and aeration during the drying and hardening phase. Between the individual operations it is absolutely essential that no moisture or contamination is allowed to penetrate.

Always heed the danger warnings and safety advice shown on the container and follow the regulations laid down by the relevant employers' liability insurance association. Refer to the safety data sheet for further information on the physical, toxicological and ecological properties of the product.

Building up the coating

1. Apply a priming stopper coat to ensure an even, pore-free substrate.

Scratch coat with 1 part by weight of SILIKAL® RE 55 to 1 part by weight of quartz sand mixture (50 % quartz powder, 50 % quartz sand 0.1 – 0.4 mm). Refer to the technical data sheet for more information.

2. Lay the copper tape: self-adhesive copper tape is glued to the surface 8 to 24 hours after the primer is applied.

Make sure that the max. free conductive length of 10 m is not exceeded.

After curing the conductive layer must be measured to ensure that the desired resistance has been achieved (nominal <math> < 10^5 \Omega </math>). Further coatings may be applied only if this limit is not reached.

The length of the individual copper flags should be at least 50 cm. The free ends of the copper tape must be properly connected to the ground terminal. The number and location of the grounding points must be determined on site. The copper tape must only be connected to the ground by a qualified electrician.

3. Apply the conductive coat of SILIKAL® RE 513, consumption approx. 150 g/m².
4. Apply the conductive top layer, e.g. SILIKAL® RE 514.

Delivery form and shades

- 10 kg combination container

Black

Shelf life

6 months if stored in the unopened original container in a cool (<math> < 25 \text{ }^\circ\text{C}</math>), dry and frost-free location.

Do not expose to direct sunlight!

Equipment cleaning

The tools must be washed thoroughly with water immediately after use.

Labelling

Giscode: RE 0

A component: Irritant, hazardous to the environment

B component: Irritant

EU Directive 2004/42/EC (VOC Paints Directive)

The maximum VOC content permitted in EU Directive 2004/42 (product category IIA/j type Wb) in the ready-to-use state is 140 g/l (limit 2010).

The maximum VOC content of SILIKAL® RE 513 in the ready-to-use state is <math> < 140 \text{ g/l}</math>.