

SILIKAL® RE 514 is a high-grade, electrically conductive, pigmented 2-component coating system.

Properties

- Conductive
- Abrasion-resistant
- Self-levelling
- Glossy
- Resistant to chemicals
- Easy to process

Areas of application

- For moderate to high mechanical stresses in areas where an antistatic or electrically conductive floor is required
- For cement-bonded substrates
- For interiors

Technical data

Mixing ratio	Component A (resin) = 5 parts by weight Component B (hardener) = 1 part by weight
Specific weight (mixture)	1.65 kg/l
Solid content	> 99 weight % (works standard)
Minimum hardening temperature	+10 °C (room and floor temperature) Note the dew point!
Optimum processing temperature	+15 to +25 °C
Pot life at +20 °C	25 min
Curing time at +20 °C	- Treatable/resistant to work/foot traffic – after 14 – 18 hours - Resistant to light mechanical stresses – after 2 – 3 days - Fully resistant to chemical and mechanical stresses – after 7 days
Coating thickness	1.3 – 1.5 mm
Quartz sand addition	None
Taber abrasion (CS 10/1000 U/1000 g)	40 mg
Consumption	1.90 – 2.30 kg/m ²
Electrical resistance to ground (DIN IEC 61340-4-1/-5-1/2)	10 ⁶ 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

Cement-bonded substrates must be sound, dry and free of laitance, loose parts, oil, dust, grease and substances which could act as releasing agents.

Suitable measures must be taken to prepare the surface, e.g. by shot blasting and/or milling, so that the listed requirements are met.

The cohesive strength of the substrate must be at least 1.5 N/mm². The moisture content of the surface to be coated must not exceed 4.5 CM %. See also the leaflet "Substrate preparation".

Advice on application

Components A and B are supplied in the correct ratio for mixing. The entirety of the hardener (comp. B) is added to the basic component (comp. A). Mixing is done by a machine (agitator at 300 - 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. The material is applied with a toothed stopper (Pajarito 48). Work in with a spike roller to ensure de-aeration. Rolling with the spiked roll should take place with a time lag of 10 – 15 min.

Do not apply at temperatures below +10 °C and with relative humidity above 75 %.

Sprinkling is not recommended on conductive coatings as this reduces conductiveness.

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 filler coat to ensure an even, pore-free substrate:
scratch coat with 1 part by weight of SILIKAL® RE 55 with 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 put down 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.
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 coat of SILIKAL® RE 514, consumption approx. 1.9 – 2.3 kg/m².

Delivery form and shades

- 10 kg combination container
- 30 kg combination container

Standard shades

Light fastness

All epoxy resin-based products will tend to yellow. This does not affect the mechanical properties of the cured coating.

Shelf life

6 months if stored in the unopened original container in a cool (< +25 °C), dry and frost-free location.
Do not expose to direct sunlight!

Equipment cleaning

The tools must be washed thoroughly with a suitable solvent immediately after use.

Labelling

Giscode: RE 1

A component: Irritant, hazardous to the environment

B component: Corrosive, hazardous to the environment

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

The maximum VOC content permitted in EU Directive 2004/42 (product category IIA/j type Lb) in the ready-to-use state is 500 g/l (limit 2010).

The maximum VOC content of SILIKAL® RE 514 in the ready-to-use state is < 500 g/l.