

SILIKAL® RE 42

Super low viscosity and pressure-water-resistant concrete primer



Expect more from your floor.

Silikal America

- Product properties:**
- + excellent penetration capabilities into concrete / floor screed (grip and surface roughness of the underground are maintained.),
 - + not film forming,
 - + permanent sealant (withstands water pressure),
 - + steam brake, CO₂-diffusion brake,
 - + high chemical resistance (oil, grease, kerosene, etc.),
 - + prevents penetration of chlorides etc.,
 - + easy-to-clean surface,
 - + UV resistant,
 - + simple and quick application,
 - + short waiting time,

Applications:

Curing:

- + curing of floor screed and green concrete,
- + reduction of plastic shrinkage cracks as a result of early drying-out,
- + reduction of the deformation behavior of concrete- or floor screed (shrinkage etc.),
- + layers of suitable paintings and coatings can be added soon

Primer:

- + For priming backside moisture penetrated concrete- or floor screed elements,
- + layers of suitable paintings and coatings can be applied shortly after Silikal RE 42 application.

Surface protection:

- + Surface protection of concrete- or floor screed elements,
- + improving of the mechanical specific values,

Colour:

Transparent

Packaging:

5 kg combination package containers.

Shelf Life:

Both components can be stored for 12 months if kept dry and cool in the original unopened packagings.

Mixing ratio:

100 parts by weight component A

28 parts by weight component B

Preparation:

Curing:

The surface of the green concrete or floor screed must be clean and free of laitance and/or standing wetness. The surface must be dry, so that the substrate is sufficiently absorbent. **The substrate must be clean and free from debris, loose or flaking material and dust.**

Primer:

The surface must be clean and free from debris, loose or flaking material and laitance. The surface must be free from contamination such as oil, grease, dust, loose particles, organic growth and other separating substances. The surface must be dry, so that the substrate is sufficiently absorbent.

Surface protection:

Before beginning the work, the substrate has to be checked for load carrying capacity. It has to be prepared with a suitable process (milling, ball blasting, sandblasting, etc.).

The surface preparation determines grip, surface roughness and the quality that can be obtained for the surface to be impregnated.

The surface must be clean and free from debris, loose or flaking material and laitance. The surface must be free from contamination such as oil, grease, dust, loose particles, organic growth and other separating substances. The separation-stability of the surface must be at least 1,5 N/mm².

Extreme blow-holes or imperfections should be filled to eliminate surface-defects. For this purpose a scraped-filler on the basis of Epoxy, Epoxy Cement Concrete, Polymer Cement Concrete or with cement based mortar should be carried out before impregnating with **Silikal® RE 42**. After the impregnation with **Silikal® RE 42**, clean cement based mortars should not be used.

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Mixing:

Silikal® RE 42 consists of a base- and a hardener component, which are delivered in the correct, co-ordinated mixture. Empty the entire hardener (component B) into the base container (component A) and mix thoroughly with an electric drill. **Mix for at least 2 minutes until a uniform consistency is obtained. The mixed material has to be poured into a clean container and has to be mixed once again.**

Application:

Irrespective of the application field, the application of Silikal® RE 42 may be carried out in two steps:

1. application step:

Pour out the mixed epoxy resin onto the concrete surface and spread it with a rubber lip. After a short operating time (appr. 10 minutes) the epoxy excess must be removed with the rubber lip. The remaining epoxy resin can be rolled out with a lint free, epoxy resin proof roller.

Heavy films as well as the building of puddles have to be avoided!

The waiting time between the coats depends on the absorbency of the substrate and is normally between one and three hours. Before applying the second coat if required, the impregnation of the first coat into the substrate should be evident.

2. application step:

See the first application step.

Heavy films as well as the building of puddles have to be avoided!

Before the application of Silikal® RE 42 on power floated industry floors the application method must be verified with the manufacturer.

During application of Silikal® RE 42 take care that there is no film building at the surface. The surface texture has to be maintained after every coating.

Air- and underground temperatures:

Minimal +8 °C (at least, however, +3 °C over the dew point),
maximal +30 °C

Estimating:

Normal material consumption is between 100 and 200 g/m² for the first coat and between 50 and 150 g/m² for the second coat. The material consumption depends on the absorbency, surface roughness and moisture of the substrate as well as on the application- and ambient temperature. Therefore, carrying out a test application is recommended to define the object-specific material consumption.

Viscosity:

Silikal® RE 42 is a super low viscosity material with only slightly increasing viscosity at low temperatures.

+ 8 °C	+ 20 °C	+ 30 °C
34 mPa·s	17 mPa·s	12 mPa·s

Application time:

The useful application time for the material cannot easily be judged by the rise in viscosity. Therefore, **Silikal® RE 42** should not be applied after the indicated application times according to the ambient temperature.

	+ 8 °C	+ 20 °C	+ 30 °C
in container ¹⁾	ca. 45 min	ca. 30 min	ca. 15 min
effused state ²⁾	ca. 60 min	ca. 45 min	ca. 30 min

¹⁾Material ≤ 2 kg)

²⁾on the concrete floor

Curing time:

The curing times of the treated surface depend on the ambient temperature and are indicated below. The temperature of the ambient air and underground should not be less than 8 °C.

+ 8 °C	+ 20 °C	+ 30 °C
> 48 hours	> 24 hours	> 12 hours

Overcoating:

A Silikal® RE 42 treated surface can be coated with Silikal resin systems. The coating material can be applied once the surface is tacky free, or in the future.

Cleaning:

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The uncured epoxy resin coating can be removed from tools with appropriate solvents. The cured epoxy resin coating can only be removed mechanically.

Precaution/Waste disposal:

GISCODE: RE 1

Hazardous material regulations: mark-duty.

For the handling of **Silikal® RE 42** the important physical, safety-related, toxic and ecological data have to be extracted from the safety-data-sheet. The instructions for hazardous material handling should be followed. The product information and safety advices on the containers as well as the individual accident prevention regulations from the responsible employees' insurance during the application are to be noticed.

In the uncured condition **Silikal® RE 42** is as a rule hazardous to water and is therefore not allowed to get into the sewerage, water and ground. Uncured quantities of this product are as a rule special wastes needing monitoring and must be disposed properly. After the agreement of the relevant responsible body or waste dump (brit.: disposal), cured material can be disposed as house-/industrial waste.

The local bodies, for example environmental protection agency or commercial control office, have a duty to disclose information therein.

Other:

Delivery only for commercial or industrial uses.

Other applicable documents:

- General processing information
- The substrate
- Information on safety and protection