Silica Reactive Resin Flooring for heavy duty floors and surfaces in trade, industry and commerce

**For over 50 years, has been used on millions of square meters of floors.
At small companies and large. In new and renovated buildings.**











silica Floors: Just the thing when things get rough



Locker room

Floors from Silica have made their mark for decades in trade, industry and commerce.

Heavy loads, wear-and-tear and corrosion – “normal” floors get nasty when they are exposed daily to such extreme stresses. They become gritty, form cracks and holes. Constant deterioration and high costs incurred by bothersome repairs, production interruptions or even standstills are the usual result.

Withsilical Reactive Resins such flooring problems are easy to solve. The firmsilica GmbH & Co. KG in Mainhausen near Frankfurt has been manufacturing reactive resins for heavy-duty industrial floors for over 50 years now: many millions of square meters successfully in use around the world in virtually every branch of industry and commerce. Silikal flooring systems meet the requirements to both resistant and attractive floors and can be customised to all individual needs concerning appearance and composition of the floor.



Warehouse



Tools market

silica reactive resins are based on acryl - ic and methacrylic acid esters, the main component being methylmethacrylate (or MMA). Whether transparent or pigmented, Silical floors can solve almost any flooring problem anywhere: from supermarkets to automobile assembly lines, heavy industry to precision mechanics and pharmaceutical labs, small workshops to huge food processing plants such as slaughterhouses, dairies, winemakers and beverage producers. But that is not all. Our floors have even proved their value at boutiques, shops and stores, on loading ramps, at TV and radio studios, in sports arenas and stadiums, in fact just about anywhere you can think of. Either as impregnation, sealant, coating, topping or screed. That is, any way you need them to deal with the stress your floor is exposed to.



silica Floors: ... and aggressive media don't stand a chance



Automotive industry

Floors from silica are resistant to acids, lyes, greases and many other aggressive media.

Heavy-duty floors in trade, industry and commerce have to live up to a huge number demands over the long term. They not only have to withstand the mechanical loads and temperature fluctuations they are exposed to every day, they must also face up to regular chemical attacks. Silica floors are UV resistant, pressure and impact-resistant and suitable for a broad area of temperatures.

The physical and chemical properties of Silikal's dense reactive resin coatings prevent liquids and contaminants from penetrating into the substrate and thus causing the growth of fungi and bacteria – essential in areas where hygiene is of the utmost importance, e.g. in sanitary spaces, large kitchens and other catering establishments as well as in the food processing and beverage bottling industries. A Silikal seamless floor is also easy-to-clean and care for. A test certificate attesting its suitability for such uses is available on request.



Tractor repair shop



Chemical lab



Beverage industry



Woodworking warehouse



Meat plant

ready for anything

Millions of square meters of reactive resins have seen action in use in Germany, throughout Europe and in many countries around the world over the past decades. They can be found on heavy-duty floors throughout practically every branch of industry from supermarkets to automobile assembly lines, from heavy industry to precision mechanics and pharmaceutical labs, from small workshops to huge food processing plants such as slaughterhouses, dairies, winemakers and beverage producers. But that is not all. They have also been used at boutiques, shops and stores, on loading ramps, at TV and radio studios as well as in sports arenas and stadiums. Convinced? Then give us a call. We'd be happy to give you more details!

So many advantages – here's what it can do for you

- ✔ Excellent for both new and renovated buildings, also for both major and minor repairs in industry, commerce and public places in general.
- ✔ Extremely short curing time. After only two hours, Silikal reactive resins attain their full mechanical and chemical resistance properties meaning virtually no more downtimes for renovations or repairs.
- ✔ Does cure at temperatures down to -10 °C making Silikal easy to work with in winter. Some special grades can even be applied down to -25 °C.
- ✔ Outstanding resistance to ageing and weathering.
- ✔ Resistant to acids, lyes, greases, oils, salts and other aggressive materials (according to the Technical Documentation of Silikal).
- ✔ Not susceptible to temperature fluctuations.
- ✔ Wear and tear-resistant, non-slipping and depending on the system, pressure-resistant to loadings even reaching 100 N/mm^2.
- ✔ Physiologically harmless.
- ✔ Creates flat, non-slip, non-skid surfaces just like the customer needs them: monolithic, non-crack, dust-free and easy-care.
- ✔ Available in full range of colours through the addition of coloured silica sand or coloured chips, even attractive new fashion colours.
- ✔ Cost effective to apply.
- ✔ Easy to rework or reapply, e.g. if the use of the floor changes.

Your consultant right on site

We deal with your problems and solve them for you. After all, we come from the building industry and have a lot of practical experience in what we do. This not only improves the quality of the service we offer, it also benefits you! We would be pleased to help you analyse your flooring problem and solve it for you – actively right on site. Your advantage: practical and reliable help from experts.



Sanding down the old floor



Vacuuming up dust and dirt



Priming



Engineering works



Storing barrels in the chemical industry



Steps in a catering trade



Fishmongers

Floors: Down and ready as fast as greased lightning



Repairing steps

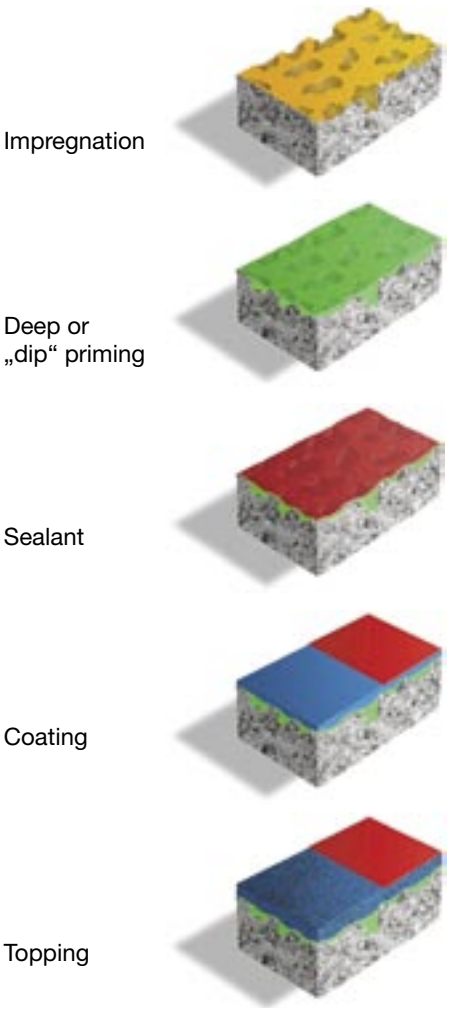
Floor repairs without stopping production – makes it happen

reactive resins are easy to apply to concrete, cement screed and partly to bituminous substrates. Curing (polymerisation) is initiated by the addition of a hardening powder.

Floors made with Silikal reactive resins attain their full mechanical and chemical resistance properties after only one to two hours – an enormous advantage both in new construction and when repairing old floors. As they are so easy to mix and prepare, form a permanent bond to the old concrete, display excellent resistance to frost and cure quickly even at temperatures below 0°C, Silikal reactive resins have been successfully used in both structural and civil engineering projects in practically every industry. They can not only be applied to industrial floors and exposed concrete surfaces of any kind, but also to prefabricated concrete components, on roadways and motorways, in tunnels and on bridges, at airports, including runways and aprons, on curbs and railway tracks, on machinery foundations and in many other places you would not expect to use a flooring system.

Silikal reactive resins solve virtually any flooring problem, such as:

- Impregnations (to saturate the pores of an absorbing substrate)
- Sealeant (transparent or pigmented coats)
- Coating (a coat of solvent-free reactive resins, thickness ranging from 0.3 to 2 mm)
- Topping (same as coatings, in general supplied with filler; thickness ranging from 2 to 6 mm)
- Screed (coat of solvent-free reactive resins with fillers and quartz-sand, thickness more than 6 mm, generally between 8 an 15 mm)



Graphic illustration of an impregnation, deep or „dip“ priming, a sealant, a coating and a topping



Coloured chips



Coverings with



Sanitary facilities



Dental practice



Riverside Stadium, Middlesborough, England