

SURFACE TREATMENT | CEMENTITIOUS FLOORING

SILRES® BS 6920

An Innovative Hybrid Binder for the Coating of Cementitious Flooring

Today, many modern buildings showcase concrete or flowing-screed floors without any top layers. These kinds of floors have a special esthetic appeal through their smooth and seamless surface, yet they stain very easily. With SILRES® BS 6920, WACKER offers a new binder for both ready-to-use impregnating agents and thin coatings for cement-bound floors. It provides excellent stain protection superior to conventional coatings and has a color-intensifying effect.

An Innovative Binder Based on a Patented Technology

SILRES® BS 6920 is an alpha-silane-terminated polyether based on WACKER's proprietary alpha-silane technology. SILRES® BS 6920 cures on contact with moisture and its chemical structure has been optimized to achieve low viscosity. As a result, the binder penetrates deep into the pores of a cement-bound floor, filling the pores completely and forming a thin, shiny film on the surface. After the binder has cured, everyday substances containing water or oil are unable to enter the pores. The new binder therefore offers highly effective stain protection. Even substances that are left on the surface for some time can be removed without any lasting stains.

Product Description of SILRES® BS 6920

Appearance	Transparent liquid
Solids	100% (solvent-free)
VOC content	Low VOC (~0.5%, 6 g/l) (Directive 2010/75 EU)
Flash point	>100 °C
Viscosity	75 mPa s
Storage behavior	Long-term stable and non-sensitive to moisture.

Application Range

SILRES® BS 6920 is ideal for cement-bound floors in industrial, commercial and private residential buildings. Examples are:

- Parking garages
- Car repair shops
- Train stations and logistics centers
- Showrooms
- Restaurants
- Event and convention centers
- Museums
- Agricultural application

Benefits of Coatings Based on SILRES® BS 6920

- 1K formulation
- Easy to handle/apply
- Deep penetration
- Solvent free
- Transparent
- Highly stain resistant
- Scratch resistant
- Color-enhancing
- Polishable
- Heat resistant
- Fire retardant

Easy to Mix and to Formulate

Due to its low viscosity, SILRES® BS 6920 can be easily mixed with standard equipment (dissolver, mixer). The low viscosity makes solvent-free processing possible. Nevertheless a solvent may be added to the formulation if it is required for the application of the coating. Formulators can use pigments, reinforcing fillers and matting agents to vary the properties of their end products. To accelerate curing, SILRES® BS 6920 is usually formulated with an aminofunctional silane (GENIOSIL® GF 91 or GENIOSIL® DAPTM, for example) that also ensures good adhesion to cement-bound substrates. In general, SILRES® BS 6920 offers formulators considerable flexibility.

Easy to Apply, Fast-Drying

Impregnating agents based on SILRES® BS 6920 are usually applied twice. The first coat strengthens the floor. A second produces a homogeneous surface that increases scratch and scrub resistance and makes the floor polishable. It is possible to walk on or drive over the floors about twenty-four hours after treatment.



Coatings based on SILRES® BS 6920 are easily applied by wiping or rolling.

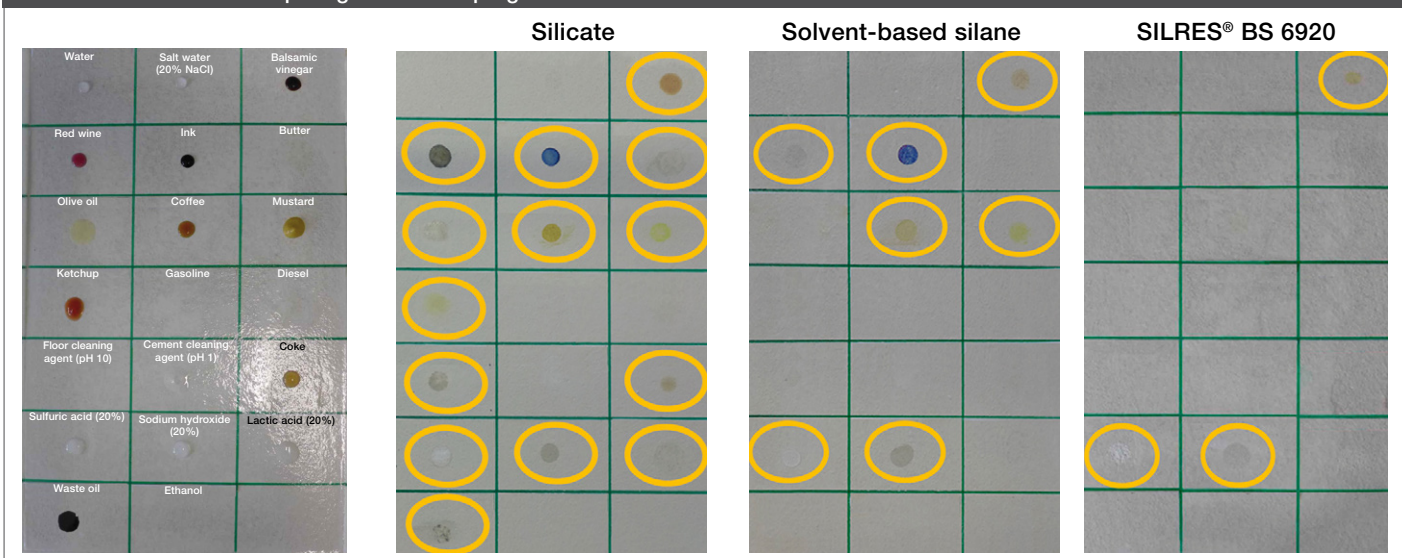
Comparing SILRES® BS 6920 with Other Impregnation Systems

There are different systems available to increase the stain resistance of mineral surfaces. Compared with these systems, SILRES® BS 6920 shows better stain resistance.

Comparison of Typical Impregnation Systems

Silicates	Silane Based	SILRES® BS 6920
Water based	Solvent based	Free of solvents
N.a.	Low flash point	High flash point
Alkaline	Neutral	Neutral
Very limited stain resistance	Limited stain resistance	Excellent anti-staining properties

Stain-Resistance Test Comparing Different Impregnations






Test procedure:

- 1: Impregnation of three concrete slabs with silicate, solvent-based silane and a SILRES® BS 6920 formulation.
- 2: Conditioning/storage for 1 week.
- 3: Treatment with test ingredients/chemicals for 24 hours



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