

# Protectosil® SC CONCENTRATE

**Aqueous formulation based on silane chemistry for an easy-to-clean treatment of porous, mineral surfaces.**

## Registration

### Protectosil® SC CONCENTRATE

DSL/NDSL (Canada):	No
PICCS (Philippines):	No
ECL (South Korea):	*
IECSC (P.R. China):	Yes
ENCS (Japan):	*
TSCA/PMN (USA):	Yes, no spray application
AICS (Australia):	*
EINECS/ELINCS (EU):	Yes
* = available on request	

## Technical Data

Properties and test methods	Value	Unit	Method
Viscosity (20 °C)	approx. 1.6	mPa.s	DIN 53015
pH (20 °C)	4	-	-
Flash point	> 95	°C	EN 22719
Appearance	Yellowish, slightly cloudy liquid	-	-
Density (20 °C)	approx. 1.06	g/cm <sup>3</sup>	DIN 51757

Protectosil® SC CONCENTRATE is suited for an easy-to-clean treatment of many mineral substrates.

## Safety and Handling

Before considering the use of Protectosil® products please read its Safety Data sheet (SDS) thoroughly for safety and toxicological data as well as for information on proper transportation, storage and use. The Safety Data Sheet is available on our website [www.protectosil.com](http://www.protectosil.com) or upon request from your local representative, customer service or from Evonik Operations GmbH, Product Safety Department, E-MAIL [sds-hu@evonik.com](mailto:sds-hu@evonik.com).

## Packaging and Storage

Protectosil® SC CONCENTRATE is supplied in 25 kg PE container, 200 kg plastic lined steel drums, and 1.000 kg bulk container. Protectosil® SC CONCENTRATE should only be diluted using demineralized water if needed. Protectosil® SC CONCENTRATE is not resistant to frost and should be stored at temperatures between 3 °C and 40 °C. Protectosil® SC CONCENTRATE has a shelf life of at least 12 months if stored in originally sealed containers.

## Properties and Use

Protectosil® SC CONCENTRATE may be used on mineral building materials such as:

- Concrete
- Brick/clinker
- Sandstone
- Marble and granite
- Glass fibre reinforced concrete
- Mineral-based stucco
- Mineral-based paints

Protectosil® SC CONCENTRATE

- treated porous, mineral substrates show very good water and oil repellency
- treated surfaces remain clean for longer times and are more easily cleaned (common liquids like coffee, coke, oils and dark liquids are easily removed)
- weakens the adhesion of chewing gum or posters to e.g. facades
- slows down the growth of microorganisms such as mold and algae
- helps avoid unsightly dark water streaks
- is highly reactive and resistant against alkali
- generates water-vapor-permeable, colorless impregnations
- no formation of sticky silicone films
- can be diluted using demineralized water
- is suited for the treatment of water repellent substrates

Protectosil® SC CONCENTRATE may be used undiluted or may be diluted using demineralized water. The exact amount to be applied, suitable dilution rate and mode of application is highly depending on the porosity of the substrate and should be determined on a small test patch. The long-term efficiency of the described effects can be varied using comparable products such as Protectosil® SC 30, Protectosil® SC 60 or Protectosil® SC 100.

It is necessary to do a test patch before each application to determine the exact consumption and to check the compatibility with the substrate.

## Application

The facade to be treated must be clean and the surface dry. Dirt, grime, efflorescence, algae and moss must be removed. High pressure or water vapour cleaning is suitable. Water absorbed during cleaning must be allowed to dry so that the surface is dry before application begins. Imperfections such as cracks, cracked joints or defective seams must be repaired using appropriate methods. Mortar used for repairs must be fully cured and surface dry.

The application is recommended if air and substrate temperatures are between 5 °C and 40 °C.

Protectosil® SC CONCENTRATE should not be applied during rain or strong wind.

The recommended application method for Protectosil® SC CONCENTRATE is with HVLP (High Volume Low Pressure) equipment. The ready-to-use solution is best applied starting from the bottom and going up the wall. This avoids pre-treating the substrate with run-off from above. Avoid using dirty application equipment, which can contaminate the product.

In most cases the hydro- and oleophobic effect develops within just a few minutes (especially in warm, dry weather). Some substrates such as e.g. lime sandstone are less reactive. In these cases the effect may take some days to fully develop. The application should be continuous and uninterrupted so that no overlapping occurs. If droplets form on the surface they should be evenly distributed using a soft brush. It should be avoided to distribute a dried film with a brush.

In some cases (especially on very coarse and very porous substrates) the easy-to-clean effect of Protectosil® SC CONCENTRATE may be enhanced by additional treatments. The amount of product required for the second and all subsequent treatments is considerably less. Several layers should only be applied using HVLP technology and resulting droplets must be rubbed in quickly using a brush or swab to distribute the liquid evenly across the surface.

In the case of polished stone (e. g. marble) simply apply Protectosil® SC CONCENTRATE once with a cloth, microfiber glove or other suitable aid by polishing until a liquid film is no longer visible. Significantly less product is required for polished surfaces (about 30 g/m<sup>2</sup>) compared to rough ones.

Non-absorbent substrates such as, for example, glass, wood, plastic and metal cannot be treated with Protectosil® SC CONCENTRATE. Glass, wood and metal are not attacked by Protectosil® SC CONCENTRATE. Neither are most plastics used in construction. Therefore covering is normally not necessary. To make sure we recommend to carry out a test. In the worst case, product not absorbed by the substrate may react with atmospheric moisture to form a greasy, glossy silicone resin film, which can easily be removed if cleaned immediately using conventional cleaning agents, or alcohol (check for compatibility of the solvent with the surface).

On horizontal surfaces exposed to traffic (e.g. pavers) the effectiveness of Protectosil® SC CONCENTRATE will be reduced over time due to abrasion, requiring reapplication after about 6 months to 2 years.

Plants in the vicinity of the substrate to be treated should be protected against contact with Protectosil® SC CONCENTRATE.

Protectosil® SC CONCENTRATE reacts with the interfaces in pores and capillaries of the mineral surface and forms invisible, interfacial compounds. To determine the exact amount to be applied and to check whether previous or following treatments are compatible with the Protectosil® SC CONCENTRATE treatment it is recommended to do a small test patch first.

## Application Details

Suitable substrates	Approximate consumption
concrete	70 g/m <sup>2</sup> (1. coat), 40 g/m <sup>2</sup> (2. coat)
sand limestone	80 g/m <sup>2</sup> (1. coat), 50 g/m <sup>2</sup> (2. coat)
marble and granite (polished)	30 g/m <sup>2</sup> (1 coat)
glazed tiles	30 g/m <sup>2</sup> (1 coat)
red brick	60 g/m <sup>2</sup> (1. coat), 30 g/m <sup>2</sup> (2. coat)
mineral plaster	70 g/m <sup>2</sup> (1. coat), 70 g/m <sup>2</sup> (1. coat),
glass fibre reinforced concrete	70 g/m <sup>2</sup> (1. coat), 40 g/m <sup>2</sup> (2. coat)

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