Technical Data Sheet

Protectosil® SC 100

"Easy-to-clean" protection for porous mineral building materials

PRODUCT DESCRIPTION

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

Typical Properties

Property	Unit	Value
Appearance		Yellowish, slightly cloudy liquid
Density DIN 51757 (@20 °C)	g/cm³	~1.018
pH Value		~4
Viscosity DIN 53015 (@20 °C)	mPa ·s	~1.0
Flash Point DIN EN ISO 2719	°C	>95

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

Protectosil® SC 100 may be used on mineral building materials such as:

- concrete
- brick/clinker
- sandstone
- marble and granite
- mineral-based stucco
- mineral-based paints

BENEFITS & ADVANTAGES

Protectosil® SC 100

- is an aqueous silane-based system intended to render porous mineral substrates hydro- and oleophobic, making them easy to clean
- makes stains caused by common liquids (coffee, coke, oils, …) easily removable
- weakens the adhesion of chewing gum or posters to e.g. facades
- treated facades remain clean longer and are less susceptible to the growth of microorganisms such as mold and algae
- treated facades show no unsightly dark water streaks
- shows high reactivity and is alkaline resistant
- forms an invisible and fully water vapor permeable impregnation
- shows no formation of sticky silicone films
- provides a very good beading effect with water and oily substances on porous mineral substrates
- is supplied ready-to-use

DOSAGE

The exact amount to be applied, suitable dilution rates and mode of application is highly depending on the porosity of the substrate and should be determined on a small test patch. The durability of the easy-to-clean performance differs in dependence on the kind of mineral substrate and the amount of applied material. The durability varies between half a year and 5 years.

The easy-to-clean effect may be in many cases (especially on very coarse and very porous substrates) enhanced by additional treatments. The amount of product required for the second and all subsequent treatments is considerably less. Droplets must be rubbed in quickly using a brush or swab to distribute the liquid evenly across the surface. Significantly less product is required for polished surfaces (about 30 g/m^2) compared to rough ones.

It is strongly recommended to arrange and observe test patches prior to the final application in order to determine the consumption, to check the compatibility with the substrate and subsequent treatments, to avoid unwanted colour changes and to verify required work and waiting times.

Substrate	Consumption rate
concrete	60 - 100 g/m²
sand limestone	70 - 200 g/m²
marble and granite	30 - 50 g/m²
clinker masonry	80 – 100 g/m²
sandstone masonry	70 - 200 g/m²
red brick	90 - 250 g/m²

HANDLING & PROCESSING

The recommended application method for Protectosil® SC 100 is with HVLP (High Volume Low Pressure) equipment. Product application using airless sprayers (low pressure, so-called "flooding" method) is possible if the substrate is sufficiently absorbent. 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. Droplets should be evenly distributed using a brush or a roller. Avoid using dirty application equipment, which can contaminate the product.

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.

In case a water repellent such as e.g. Protectosil® BHN or a corrosion inhibitor such as Protectosil® CIT was applied to the substrate prior to the easy-to-clean treatment, it is recommended to wait at least 5 days before Protectosil® SC 100 is applied. Since the aqueous solution of Protectosil® SC 100 cannot penetrate a previously treated section, it is essential that resulting droplets are evenly distributed with a brush, otherwise mottling can appear.

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 un-interrupted 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.

During the application, both surface and ambient temperature should range between 10 °C and 40 °C. Protectosil® SC 100 should not be sprayed at high wind speeds (>18 km/h) or applied to uncovered or unshielded surfaces during rain.

Non-absorbent substrates such as, for example, glass, wood, plastic, and metal cannot be treated with Protectosil® SC 100. Glass, wood, and metal are not attacked by Protectosil® SC 100. 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). Plants in the vicinity of the substrate to be treated should be protected against contact with Protectosil® SC 100.

SAFETY

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 https://silanes.evonik.com/en or upon request from your local representative, customer service or from Evonik Operations GmbH, Product Safety Department, E-MAIL sds-hu@evonik.com.

PACKAGING

Protectosil® SC 100 is supplied in 25 l PE container and 200 l plastic lined steel drums.

STORAGE

The product should be stored at temperatures between 3 °C and 40 °C.
Do not allow material to freeze

SHELF LIFE

Protectosil® SC 100 has a shelf life of at least 12 months if stored in originally sealed containers.

Registration Listings

Registry	Status
Australia (AICIS)	Information upon request
Canada (DSL)	No
China (IECSC)	Yes
EU (REACH)	Yes
South Korea (KECL)	Yes
Philippines (PICCS)	No
United States of America (TSCA)	Yes

For further information
visit our
Customer Portal

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