

## Protectosil® SC 1000

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

### Technical Data

Properties and test methods	Value	Unit	Method
Density (20 °C/ 68 °F)	1.33	g/cm <sup>3</sup>	DIN 51757
Viscosity (20 °C/ 68 °F)	3.5	mPa.s	DIN 53015
Flash point	85/ 185	°C/ °F	EN 22719
Boiling point (1.013 hPa)	220/ 428	°C/ °F	DIN 51751
Melting point	< -38	°C/ °F	DIN ISO 3841

### Registration

#### Protectosil® SC 1000

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

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### Safety and Handling

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

### Packaging and Storage

**Protectosil® SC 1000** is supplied in 10 kg, 25 kg PE container and 200 kg plastic lined steel drums. **Protectosil® SC 1000** should be stored at temperatures between 3 °C and 40 °C.

**Protectosil® SC 1000** has a shelf life of at least 12 months if stored in originally sealed containers.

## Properties and Use

### Protectosil® SC 1000

- treated porous, mineral substrates show excellent water and oil repellency
- treated surfaces remain clean for longer times and are more easy to clean (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 watervaporpermeable, colorless impregnation
- no formation of sticky silicone films
- is suited for the treatment of water repellent substrates

**Protectosil® SC 1000** is suited for an easy-to-clean treatment of many mineral substrates. **Protectosil® SC 1000** may be used undiluted or may be diluted using alcohols (such as ethanol or isopropanol) or xylol. 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 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 1000** should not be applied during rain or strong wind. In the case that a water repellent agent such as **Protectosil® BHN** or a corrosion inhibitor such as **Protectosil® CIT** have been applied the substrate has to set for at least 5 days before **Protectosil® SC 1000** is applied.

The recommended application method for **Protectosil® SC 1000** is with HVLP (High Volume Low Pressure) equipment. Product application using airless sprayers (low pressure, so-called "flooding" method) is also 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. 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 limestone 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.

## Processing

In some cases (especially on very coarse and very porous substrates) the easy-to-clean effect of **Protectosil® SC 1000** 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 1000** 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 1000**. Glass, wood, and metal are not attacked by **Protectosil® SC 1000**. 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 1000**. **Protectosil® SC 1000** 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 1000** treatment it is recommended to do a small test patch first.

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#### **Europe / Middle-East / Africa / Row**

##### **Evonik Industries AG**

Inorganic Materials  
Rodenbacher Chaussee 4  
63457 Hanau-Wolfgang  
Germany  
PHONE +49 6181 59 13636  
FAX +49 6181 59 13737  
protectosil@evonik.com  
www.protectosil.com

#### **Asia / Pacific**

##### **Evonik Degussa (SEA) Pte. Ltd.**

Inorganic Materials  
3 Internatioanl Business Park  
#07-18, Nordic European Centre  
Singapore 609927  
PHONE +65 6890 6830  
FAX +65 6899 6630  
protectosil@evonik.com  
www.protectosil.com

#### **Asia / Pacific**

##### **Evonik Taiwan Ltd.**

Inorganic Materials  
Artist Construction Bldg  
9F, No. 133  
Min Sheng East Road, Sec 3  
Taipei, 105 Taiwan, R.O.C.  
Taiwan  
PHONE +886 227 17 1242  
FAX +886 227 17 2106  
protectosil@evonik.com  
www.protectosil.com

#### **North America**

##### **Evonik Degussa Corporation**

Inorganic Materials  
P.O. Box 677  
299 Jefferson Road  
Parsippany, NJ 07054-0677  
USA  
PHONE (TOLL FREE) +1 800 828 0919  
PHONE +1 973 929 8513  
FAX +1 973 929 8503  
protectosil@evonik.com  
www.protectosil.com

#### **Asia / Pacific**

##### **Evonik Degussa (Shanghai) Co. Ltd.**

Inorganic Materials  
55, Chungdong Road  
Shanghai 201108  
P.R. China  
PHONE +86 21 6119 1053  
FAX +86 21 6119 1075  
protectosil@evonik.com  
www.protectosil.com

#### **Asia / Pacific**

##### **Evonik Japan Co. Ltd**

Inorganic Materials  
12th Floor Monolith Building  
2-3-1, Nishi-Shinjuku-ku  
Tokyo 163-0912  
Japan  
PHONE +81 353 23 7300  
FAX +81 353 23 7399  
protectosil@evonik.com  
www.protectosil.com

#### **Latin America**

##### **Evonik Brasil Ltda.**

Inorganic Materials  
Alameda Campinas, 579  
01404-000 São Paulo-SP  
Brazil  
PHONE +55 11 3146 4123  
FAX +55 11 3146 4148  
protectosil@evonik.com  
www.protectosil.com

#### **Asia / Pacific**

##### **Evonik Korea Ltd.**

Inorganic Materials  
94, Galsan 1-dong  
Bupyeong-gu  
Incheon, 403-081, Korea  
PHONE +82 32 510 2433  
FAX +82 32 505 2510  
protectosil@evonik.com  
www.protectosil.com

#### **Asia / Pacific**

##### **Evonik India Pvt. Ltd.**

Inorganic Materials  
Krislon House  
Saki Vihar Road, Anderi (E)  
Mumbai - 400 072  
India  
PHONE +91 226 7238 809  
FAX +91 226 7238 811  
protectosil@evonik.com  
www.protectosil.com