

Product Information

Internet:
www.protectosil.com
E-mail:
protectosil@degussa.com

Evonik Degussa GmbH
Aerosil & Silanes
Weissfrauenstraße 9
D-60287 Frankfurt am Main
Germany

Phone: +49-69-218-5656
Fax: +49-69-218-3496

Degussa Corporation
Aerosil & Silanes
379 Interpace Parkway
P.O. Box 677
Parsippany
NJ 07054-0677
USA

Phone:
800-828-0919 (Toll Free)
+1-973-541-8506
Fax: +1-973-541-8503

Degussa (China) Co., Ltd.
Aerosil & Silanes
55, Chungdong Road
Xinzhuang Industry Park
Shanghai 201108
P.R. China

Phone: +86-21-6119-1052
Fax: +86-21-6119-1075



Protectosil[®] SC 30, Protectosil[®] SC 60, Protectosil[®] SC 100

„Easy-to-clean“ protection for porous mineral building materials

Product Description

Protectosil[®] SC 30, Protectosil[®] SC 60 and Protectosil[®] SC 100 are aqueous silane-based systems intended to render porous mineral substrates hydro- and oleophobic, making them easy-to-clean. They are practically free from volatile organic components (VOC). Treated facades remain clean longer, show no unsightly dark water streaks and are less susceptible to the growth of microorganisms such as mold and algae. Stains caused by common liquids coffee, cola and oils, dark liquids that are easily absorbed by untreated surfaces leaving permanent stains, can be easily removed from treated surfaces if cleaning is carried out short time after the staining.

The durability of the easy-to-clean effect differs in dependence on the kind of mineral substrate and the amount of applied material. The durability lasts between half a year and 5 years. For the same kind of substrate and equal consumption rates the performance of **Protectosil[®] SC 30** in terms of the water and oil beading effect lasts longer than **Protectosil[®] SC 60** or even **Protectosil[®] SC 100**.

Recommended Applications

Protectosil[®] SC 30, Protectosil[®] SC 60 and Protectosil[®] SC 100 can be used to create an easy-to-clean surface on many porous, non-painted mineral-based building materials. Some examples include:

- Sand limestone masonry
- Sandstone masonry
- Brick masonry
- Concrete
- Marble and granite (only rough surfaces and **Protectosil[®] SC 30** suitable)

Product Characteristics

Protectosil[®] SC 30, Protectosil[®] SC 60 and Protectosil[®] SC 100

- create a water-vapor permeable, hydro- and oleophobic protection
- do not form a sticky silicone film
- create beading effects of water and oil on absorbent mineral building materials
- keep facades clean longer and make cleaning easier
- slow down the growth of microorganisms
- prevent unsightly water streaks caused by rain

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

® = registered trademark

Product Information

Internet:
www.protectosil.com
E-mail:
protectosil@degussa.com

Evonik Degussa GmbH
Aerosil & Silanes
Weissfrauenstraße 9
D-60287 Frankfurt am Main
Germany

Phone: +49-69-218-5656
Fax: +49-69-218-3496

Degussa Corporation
Aerosil & Silanes
379 Interpace Parkway
P.O. Box 677
Parsippany
NJ 07054-0677
USA

Phone:
800-828-0919 (Toll Free)
+1-973-541-8506
Fax: +1-973-541-8503

Degussa (China) Co., Ltd.
Aerosil & Silanes
55, Chungong Road
Xinzhuang Industry Park
Shanghai 201108
P.R. China

Phone: +86-21-6119-1052
Fax: +86-21-6119-1075

● ● ● ● ●

Protectosil®

Technical data

Property	Value	Unit	Method
Density (20 °C)	approx. 1,008	g/cm ³	DIN 51757
Appearance	yellowish, slightly cloudy liquid		
Viscosity (20 °C)	approx. 1	mPa s	DIN 53015
pH (20 °C, 1:1 in H ₂ O)	4		
Flash point	> 90	°C	EN 22719

Example:

One surface section of the brick wall shown below was treated with **Protectosil® SC 30**. The other section was left untreated. After several years of outdoor weathering, the difference is clear (neither section was cleaned before the photographs were made):



untreated



treated with **Protectosil® SC 30**

Application Information

The facade to be treated must be clean and the surface dry. Dirt, grime, efflorescence, algae and moss must be removed. 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 the case that a hydrophobizing agent such as **Protectosil® BHN** or a corrosion inhibitor such as **Protectosil® CIT** have been applied to the substrate, it is recommended to wait approximately 2 weeks before **Protectosil® SC 30**, **Protectosil® SC 60** or **Protectosil® SC 100** are applied.

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

® = registered trademark

Product Information

Internet:
www.protectosil.com
E-mail:
protectosil@degussa.com

Evonik Degussa GmbH
Aerosil & Silanes
Weissfrauenstraße 9
D-60287 Frankfurt am Main
Germany

Phone: +49-69-218-5656
Fax: +49-69-218-3496

Degussa Corporation
Aerosil & Silanes
379 Interpace Parkway
P.O. Box 677
Parsippany
NJ 07054-0677
USA

Phone:
800-828-0919 (Toll Free)
+1-973-541-8506
Fax: +1-973-541-8503

Degussa (China) Co., Ltd.
Aerosil & Silanes
55, Chungong Road
Xinzhuang Industry Park
Shanghai 201108
P.R. China

Phone: +86-21-6119-1052
Fax: +86-21-6119-1075


Protectosil®

Depending on the substrate, temperature and consumption rate during application this time may be shortened to 5-7 days. In this case it is strongly recommended to perform an application test first.

Do not apply the products during rain or strong winds.

Due to the water content, the treatment solution is susceptible to freezing and must not be used at temperatures under 3 °C. The application is recommended if air and substrate temperatures are between 5 °C and 40 °C.

Product application using airless sprayers (low pressure, so-called "flooding" method) is possible if the substrate is sufficiently absorbent. In order to reduce the consumption rate, the recommended application method is with HVLP (High Volume Low Pressure) equipment (see also <http://www.wagner-group.com/english/3maler/produkte/3niederdruckanlagen.htm>).

The ready-to-use solutions are 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.

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.

In most cases the hydro- and oleophobic effect forms within just a few minutes (especially in warm, dry weather). Some substrates, such as limestone, are less reactive. In such cases the effectiveness may take some days to fully develop. The application should be continuous and uninterrupted so that no overlapping occurs. The aqueous solutions of **Protectosil® SC 30**, **Protectosil® SC 60** or **Protectosil® SC 100** cannot penetrate a previously treated section. Resulting droplets can cause mottling if not rubbed in with a brush.

Adjoining areas such as windows, glass, painted surfaces, surfaces to be painted, plants and landscaping should be protected with plastic from overspray. In case of accidental contamination the resulting film can be removed with standard cleaners, silicone removers, mineral spirits or solvents if applied immediately before it hardens.

Protectosil® SC 30, **Protectosil® SC 60** and **Protectosil® SC 100** react with the interface of the mineral substrate's pores and capillaries to form hydrophobic interface-compounds. Since previous building material treatments may not be known, a test patch is recommended to avoid any undesired side effects.

Information on Consumption Rate

If a solution of **Protectosil® SC 30**, **Protectosil® SC 60** or **Protectosil® SC 100** is applied, the amount of solution required, depends on the porosity and the absorbency of the substrate combined. Exact values should be determined using test patches.

As a rule for **Protectosil® SC 30** the product consumption is about 50-280 g/m² (e.g. concrete about 50-150g/m²; red sandstone 70-200 g/m²). The product consumption of **Protectosil® SC 100** is about 20 g/m² higher than the one of **Protectosil® SC 30**.

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

® = registered trademark

Product Information

Internet:
www.protectosil.com
E-mail:
protectosil@degussa.com

Evonik Degussa GmbH
Aerosil & Silanes
Weissfrauenstraße 9
D-60287 Frankfurt am Main
Germany

Phone: +49-69-218-5656
Fax: +49-69-218-3496

Degussa Corporation
Aerosil & Silanes
379 Interpace Parkway
P.O. Box 677
Parsippany
NJ 07054-0677
USA

Phone:
800-828-0919 (Toll Free)
+1-973-541-8506
Fax: +1-973-541-8503

Degussa (China) Co., Ltd.
Aerosil & Silanes
55, Chungong Road
Xinzhuang Industry Park
Shanghai 201108
P.R. China

Phone: +86-21-6119-1052
Fax: +86-21-6119-1075



Registration

EINECS/ELINCS (EU)	Yes
AICS (Australia)	Notification in progress
DSL/NDSL (Canada)	No
PICCS (Philippines)	No
TSCA (USA)	Yes, spraying not allowed
IECS (P.R. China)	Yes
ENCS (Japan)	LVE
ECL (South Korea)	Notification in progress

Safety and Handling

Before considering the use of any chemical read its Material Safety Data Sheet thoroughly for safety and toxicological data as well as for information on proper transportation, storage and use. The Material Safety Data Sheet is available upon request from your local Degussa representative or through the internet page www.dynasylan.com (after registration).

Packaging, Storage and Shelf Life

Protectosil® SC 30, Protectosil® SC 60 and Protectosil® SC 100 have a shelf life of more than twelve months. Containers must be kept tightly sealed. The products should be stored at temperatures between 3 °C and 40 °C.

The products are supplied in 25 l and 200 l plastic lined steel drums.

Protectosil® SC 30, SC 60, SC 100-EN-2007-11

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

® = registered trademark