

Technical Datasheet

Protectosil® ANTIGRAFFITI

Permanent graffiti protection for porous mineral building materials

PRODUCT DESCRIPTION

Protectosil® ANTIGRAFFITI is a waterborne breathable, antigraffiti treatment for use on concrete, brick, concrete masonry units and natural stone.

Typical Properties

| Property | Unit | Value |
|--|-------------------|---|
| Appearance | | yellowish to orange, slightly cloudy liquid |
| Chemistry | | fluorosilanes |
| Density DIN 51757 (@20 °C) | g/cm ³ | 1.06 |
| Flash Point DIN EN ISO 2719 | °C | >95 |
| pH Value | | 4 |
| Viscosity DIN 53015 (@20 °C) | mPa·s | ~1.6 |

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

Protectosil® ANTIGRAFFITI may be used as a graffiti repellent on mineral building materials such as:

- concrete
- brick and block masonry/clinker
- terra-cotta
- sandstone (some types might require a primer)
- sand limestone
- mineral-based stucco (with limits)
- marble and granite

To be used in conjunction with Protectosil® water repellents to provide water and graffiti protection for the entire structure.

Various sandstones or dense concrete types are sensitive to darkening. For these kind of substrates it is recommended to apply a base coat such as Protectosil® SC 100 or Protectosil® BHN before applying Protectosil® ANTIGRAFFITI.

It is not recommended to apply Protectosil® ANTIGRAFFITI on painted surfaces or on plaster as the usage of a graffiti cleaner after an attack might affect the paint or plaster underneath the impregnation as well.

BENEFITS & ADVANTAGES

Protectosil® ANTIGRAFFITI offers:

- permanent graffiti protection (up to ten cleanings can be expected from each application)
- invisible and water vapor permeable protection
- UV- and weather-resistant (>10 years)
- no blushing, peeling or yellowing
- water- and oil repellency on absorbent and porous mineral building materials
- easy removal of a wide variety of graffiti, including spray paint, permanent marker, ink, bituminous paints, asphalt sealers, and other solvent or waterborne paints

DOSAGE

The number of application steps and required amount of product depends on the substrate and the desired effect. In general, porous materials require more coats than dense microporous materials. Several coats of Protectosil® ANTIGRAFFITI must be applied to provide effective protection against graffiti attacks. Very porous and absorbent surfaces require higher amounts of product than smooth, dense, and microporous materials. The table below provides examples of required quantities.

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 avoid unwanted colour changes and to verify required work and waiting times.

Polished surfaces such as marble or granite do not require several coats of Protectosil® ANTIGRAFFITI. The treatment of these substrates should be done by polishing using a cloth or a microfiber cloth.

HANDLING & PROCESSING

Step 1:

The surface of the facade to be impregnated must be clean and dry. Dirt, stains, algae, moss or pre-treatment substances such as release oil have to be thoroughly removed in order to avoid possible and unwanted interactions. Any water absorbed by the surface during the cleaning process itself must dry thoroughly before application. Cracks, gaps, and flawed joints must be properly repaired. Freshly applied repair mortar should be allowed to cure and the surface must be dry.

In case a water repellent such as e.g. Protectosil® BHN was applied to the substrate prior to the antigraffiti treatment, it is recommended to wait at least 5 days before Protectosil® ANTIGRAFFITI is applied.

Adjacent surfaces, such as windows, painted or unpainted surfaces, glass, plants, and soil that is not supposed to come into contact with the product should be covered with appropriate materials (e.g., plastic-sheeting) to protect from spray and run-off.

Step 2:

Protectosil® ANTIGRAFFITI is a ready-to-use product. Best results will be achieved using HVLP (High Volume Low Pressure) equipment. Because of their low atomizing pressure of no more than 0.7 bar/10 psi, these reduced-overspray high-performance guns produce far less spray mist with a high material ejection rate. The low internal nozzle pressure reduces the rebound of paint droplets from the object. HVLP high-performance spray guns produce a fine, soft, and homogeneous spray that permits a broad and uniform material application. Protectosil® ANTIGRAFFITI is particularly easy to handle with nozzle sizes of from 1.3 mm to 1.5 mm.

The first application should be carried out in horizontal lines starting from the bottom working upwards to the top in one stroke to prevent premature impregnation by material running down the surface. Large drops should be rubbed in with a brush. A water beading effect will develop within a few minutes.

Step 3:

In order to provide permanent protection against graffiti attacks, more than one application step is required. Subsequent coats can be applied as soon as the surface of the preceding coat has dried. The required drying times vary between 10 minutes and one hour depending on temperature and weather.

It is best to use HVLP systems to apply subsequent coats of the product. A fine coating of liquid droplets will form on the surface. This must be rubbed in with a large brush as quickly as possible before the droplets can dry off. Care must be taken to ensure that the impregnation is distributed uniformly.

In order to ensure that the surface is uniformly wetted, it should appear bright and wet.

During the application, both surface and ambient temperatures should range between 3 °C and 40 °C. Protectosil® ANTIGRAFFITI should not be sprayed at high wind speeds (>18 km/h) or applied to uncovered or unshielded surfaces during rain.

GRAFFITI CLEANING

If a Protectosil® ANTIGRAFFITI treated surface is attacked by a graffiti, it should be cleaned with a high-pressure water jet at its lowest setting (with max. 12 bar) first. All remaining paint and spray residues should be cleaned off using a standard commercial graffiti cleaner. The cleaner should be applied and used according to the suppliers instructions. Removal of paints based on bitumen might require a special bitumen cleaner.

| Substrate type | Example | Consumption rate | Application method |
|----------------------------------|---------------------------------|----------------------------|------------------------------------|
| polished | polished marble, granite | 20 – 50 g/m ² | polishing |
| flamed | flamed granite | 60 – 100 g/m ² | 2 application steps |
| fired | clinker, brick masonry | 80 – 120 g/m ² | 2-3 application steps ¹ |
| smooth | dense concrete | 100 – 150 g/m ² | 2-3 application steps ¹ |
| porous – dense | porous concrete, sand limestone | 140 – 160 g/m ² | 2-3 application steps ¹ |
| porous – porous to highly porous | plaster, structured surfaces | 140 – 200 g/m ² | 2-3 application steps ² |

¹Usage of a primer is recommended

²Product consumption is highly dependent on the type of primer that was applied and the structuring of the surface

PACKAGING

Protectosil® ANTIGRAFFITI is supplied in 25 kg, in 200 kg and 1.000 kg containers.

STORAGE

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

SHELF LIFE

The product has a shelf life of at least 12 months when stored in originally sealed containers.

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

Registration Listings

| Registry | Status |
|---------------------|------------------------|
| Australia (AICIS) | Information on Request |
| Canada (DSL) | Information on Request |
| China (IECSC) | Yes |
| EU (EINECS/ELINCS) | Yes |
| Japan (ENCS) | Information on Request |
| Korea (KECL) | Information on Request |
| Philippines (PICCS) | Information on Request |
| USA (TSCA) | Yes |

For further information
visit our
customer portal



World of Protectosil®

Disclaimer

This information and all further technical advice are 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.

Evonik Operations GmbH

Silanes
Rodenbacher Chaussee 4
63457 Hanau-Wolfgang
Germany
[evonik.click/silanes](https://www.evonik.click/silanes)