



Protectosil® ANTIGRAFFITI

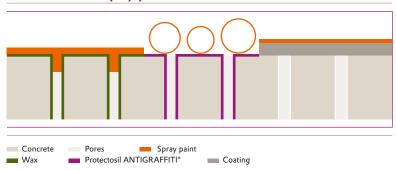


Effective Graffiti Protection with Protectosil®

Keeping buildings free from graffiti is a difficult task that must be accomplished rapidly, efficiently, and cost-effectively. Protectosil ANTIGRAFFITI® is free of solvents and therefore environmentally friendly. It is hydro- and oleophobic, which means that paints, coatings, and markers cannot adhere to the surface or penetrate into the pores of the building material; pictures and tags simply run off the surface. These properties act as a deterrent to graffiti sprayers.

Protection with Protectosil ANTIGRAFFITI® allows easy removal of the paint, particulary with the specifically designed cleaner Protectosil® PROFICLEAN GEL. Another important advantage of Protectosil ANTIGRAFFITI® systems is that their protective effect is almost invisible. And they do not seal the surface of the building material – as polyurethane systems, for example do – so that the water-vapor permeability of the substrate is retained.

Mode of action of various graffiti protection systems – Substrate after spray-paint attack



Protectosil® Is Simple to Use

Protectosil ANTIGRAFFITI* is fast and economically applied using the simple HVLP (high volume low pressure)* spraying process.

Drying times are short, ranging between 10 and 60 minutes depending on the outside temperature and the substrate.

Protectosil ANTIGRAFFITI® Provides Durable Protection

In contrast to sacrificial (temporary) systems, which must be reapplied after every cleaning cycle, permanent systems such as Protectosil ANTIGRAFFITI® can withstand more than ten cleaning cycles before the surface protection must be reapplied. Additionally, the permanent system is UV- and weathering resistant.

Protectosil ANTIGRAFFITI® withstands up to 10 cleaning cycles Cleaning cycle Protected with 1x time 2x time 3x time 4x time 5x time 6x time 7x time 8x time 9x time 10x time Protectosil® **ANTIGRAFFITI** Sacrificial system cleaning re-application

Some types of sandstone and dense concrete tend to darken. Where this effect is undesired, pretreatment with Protectosil ANTIGRAFFITI® PRIMER is recommended. This prevents darkening while leaving the durability and water-vapor permeability unaffected.

Case Study: Weltstadthaus, Cologne

Renzo Piano's Weltstadthaus store for Peek & Cloppenburg. The facade is protected by Protectosil ANTIGRAFFITI $^{\circ}$.





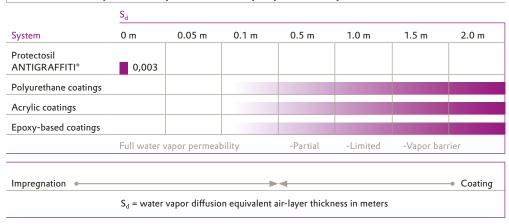


Protectosil ANTIGRAFFITI® Is Permeable to Water Vapor

The water vapor from the interior of the building material can escape almost freely. This means that the material is not damaged by residual moisture, the substrate climate is optimal, and the natural surface structure is retained Convincing

proof of this is offered by the s_d value. Protectosil ANTIGRAFFITI® creates an s_d value of only 0.003 m, much lower than polyurethane (PUR), acrylic, or epoxy resin layers with s_d values of 1.0 m and more.

Graffiti-control systems compared: water vapor permeability



Text for invitation of tenders

Permanent graffiti protection system for porous mineral substrates (e.g., natural stone or concrete). Creation of strong hydro- and oleophobicity at the facade surface. Water-based, withstands at least 10 cleaning cycles, authorized by BASt (German Federal Highway Research Institute).



Protectosil ANTIGRAFFITI® is Cost-Effective

In terms of overall costs, Protectosil ANTIGRAFFITI® offers significant cost advantages over temporary systems. While temporary systems might appear

less expensive at first, because of their reapplication after every cleaning, they are more costly over time.

Example calculation

	Protectosil ANTIGRAFFITI®	High-quality wax system**
Product costs Consumption	8-10 €/m² 150 g/m²	3.50-4 €/m²
Application costs	8–10 €/m²	6–8 €/m²
Total costs	16-20 €/m²	9,5–12 €/m²

Example calculation for cleaning of protected surfaces

	Protectosil ANTIGRAFFITI®*	High-quality wax system**
1st Cleaning cycle	6–7 €/m²	15.5–19 €/m²
3 rd Cleaning cycle	6–7 €/m²	15.5–19 €/m²
10 th Cleaning cycle	6–7 €/m²	15.5–19 €/m²
Total costs	60-70 €/m²	155-190€/m²

^{*}Cleaning done with Protectosil® PROFICLEAN GEL

^{**}With removal of graffiti, the wax system is also removed and reapplied. All data represent average values and are for illustrative purposes only. Prices are exclusive of VAT.

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. Recipients of this information and recommendations must make their own determination as to its suitability for their purposes. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. EVONIK EXPRESSLY DIS-**CLAIMS ANY REPRESENTATIONS** AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COM-PLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FIT-NESS FOR A PARTICULAR PUR-POSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RE-SPECT TO ANY INFORMATION AND RECOMMENDATIONS PRO-VIDED. Reference to any trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used. Evonik reserves the right to make any changes to the information and/or recommendations at any time, without prior or subsequent notice.

Protectosil® is a registered trademark of Evonik Industries or one of its sub-



Europe / Middle-East / Africa / Latin America

Evonik Resource Efficiency GmbH

Business Line Silanes Rodenbacher Chaussee 4 63457 Hanau-Wolfgang Germany

PHONE +49 6181 59-13636 FAX +49 6181 59-13737 protectosil@evonik.com www.protectosil.com

NAFTA

Evonik Corporation

Business Line Silanes 299 Jefferson Road Parsippany, NJ 07054 USA

PHONE +1 800 828-0919 FAX +1 973 541-8503 protectosil@evonik.com www.protectosil.com Asia / Pacific

Evonik Specialty Chemicals (Shanghai) Co. Ltd.

Business Line Silanes 55, Chungdong Road Xinzhuang Industry Park Shanghai 201108, P.R. China

PHONE +86 21 61191 660 FAX +86 21 6119-1075 protectosil@evonik.com www.protectosil.com