



FAKOLITH[®]
chemical systems

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Integral graffiti cleaning system and permanent or renewable anti-graffiti protection for facades and heritage sites

Description of the problem

Graffiti or unauthorized graffiti is a type of urban vandalism that is very often found on the lower parts of our buildings.

The rapid evolution of the chemical industry and more specifically of the wide variety of sprays, markers, inks and pigments, together with the different surfaces, textures and absorption values of these, make necessary a range of cleaners capable of dealing with such a diversity of graffiti and surfaces.



Therefore, the combination of our products **macs Liquid** and **macs Cracker** achieve a percentage efficiency of more than 95% of positive results. Sometimes, after the combined action of both cleaners, there may be traces of pigment haloes embedded in the bases. A third cleaner called **macs Oxydizer**, specially formulated as a pigment halo oxidant sequestrant, should then be used.

Once the base has been cleaned and the graffiti has been removed, the most suitable anti-graffiti protector for each case should be chosen. The **FLUOROMER** range based on silane siloxanes and fluorinated compounds C6- and C8 is the best option for absorbent mineral bases. It respects their appearance and provides a permanent protection, which resists several cleanings of new graffiti, either with hot pressurized water or with one of our cleaners. If the base is not absorbent, and it is polished, as it often happens with marble, granite, or lacquered surfaces such as wagons, **EPOSILAN PLUS** will be the most recommended option, creating a high gloss and resistant microfilm, on which new graffiti can be easily removed. Finally, if what we need to protect is a painted facade, **GRAFFI-Protect** will be the appropriate renewable protector, which, by creating a transparent and protective layer, while sacrificial, allows to remove new graffiti with hot water pressure, yes, in this case it will be necessary to renew the application of the protector after each cleaning.

Note: if you need any kind of treatment prior to the final protection with anti-graffiti, such as volumetric reconstruction, mineralization, mineral glazes..., please contact our technical department and we will be pleased to indicate you the best options.

Summary of the most common basic solution and procedure

1. GENERAL PRE-CLEANING OF THE BASE:

We want to make a small emphasis: when there was accumulated pollution on the facade, first of all, they should clean it with the product **FK-111**. This will facilitate the direct contact of the graffiti cleaners with the graffiti to be removed, while avoiding later differences with the areas where the graffiti has been removed. For the same reason and once the graffiti has been removed, a cleaning with **FK-12** will also be carried out to homogenize the general cleaning of the mineral bases to be rehabilitated.

- FAKOLITH FK-111: In case of severe affectation by pollution on the graffiti, apply the descaler and cleaner of grease,

pollution, industrial dirt... **FK-111** and rinse with water. Otherwise proceed directly with the cleaning of graffiti as indicated below.

2. GRAFFITI CLEANING

- **Option A** - macs Liquid + macs Cracker: Once the surface is dry, apply a generous coat of macs Liquid. During the following approximately 30 minutes the applied material will be brushed to help in its stripping activity. After 30 minutes and without removing the previous application, an abundant coat of macs Cracker will be applied. In the same way, during the following 30 minutes, the graffiti will be brushed from time to time, wetting with macs Cracker, until its removal with pressurized water, preferably with hot water. The graffiti will be completely removed... otherwise go to option B.

- **Option B** - macs Oxydizer: Once the mineral base is dry, the special cleaner **macs Oxydizer** will be applied on the remains of the halo that could have remained on the surface. It will be spread on the existing aureoles and will be protected with a plastic film. After 12-24 hours, remove the plastic film and remove the **macs Oxydizer** cleaner / sequestrant with pressurized water. If not, repeat this last step, or contact our technical department for very special cases.

3. SUBSEQUENT GENERAL CLEANING OF THE BASE

- FAKOLITH FK-12: After the cleaning of the graffiti, and so that the base is clean in a homogeneous way, it is convenient to make a last general cleaning with this polyvalent cleaner, since it will also prepare the base for the suitable penetration of the later anti-graffiti protector.

4. ANTI-GRAFFITI PROTECTION

- **Option A** - FLUOROSIL CLASSIC- Apply this breathable anti-graffiti protector, on absorbent mineral bases, which adds to the water-repellent properties, the protection against graffiti and graffiti, without altering its appearance.

- **Option B** - Eposilan Plus - Apply this high gloss micro-pelicular anti-graffiti protector on low absorption, polished or very small pores substrates, such as polished marble or granite, vitrified tiles, lacquered surfaces of transport vehicles such as wagons, signs, etc. (Matte version on request).

- **Option C** - GRAFI PROTECT - Apply this renewable anti-graffiti protector, if you want to protect a painted facade, and you want to protect it.

Application process

1.- FK-111

DESCRIPTION AND MAIN USE: FAKOLITH FK-111 is a detergent cleaner for use with grease-based dirt or grime, pollution, biofilms matrix, scorching or industrial grime in general, on surfaces resistant to alkaline solutions. Mainly for use in the food industry, industry in general, construction and civil engineering. Health Register FAKOLITH RGSEAA ES-39.005259/T y ROESP E-0043-E.

RECOMMENDED THINNER: 1 part FK-111 to 4 parts water. Can also be used undiluted if necessary, in more contaminated areas or when speed of action is required.

HOW TO APPLY: Carefully protect all surfaces that are not to be treated from splashing. Apply diluted FK-111 using spray guns, brushes or rollers and immediately activate the product by scrubbing with a brush with stiff plastic bristles, working particularly on the worst affected areas. Allow 15-20 minutes to pass, although always before it has dried, and then wash off and rinse thoroughly using water under pressure. If so required the operation can be repeated. Leave to dry before going ahead with possible additional treatments. For further details consult the specifications sheet and/or application guidelines, along with the safety sheet.

AVERAGE YIELD: Undiluted FK-111 provides a yield of approx. 8-12 litres/m², although depending on the extent of the

contamination this may vary considerably.

2.- OPTION A - Liquid (Liquid + Cracker Gel combined system)

DESCRIPTION AND MAIN USE: Graffiti remover cleaner, especially suitable for surfaces without previous anti-graffiti protection. It has great deep action in the pores, and is applicable on all surfaces resistant to solvents. Its effectiveness will be enhanced with the combined action with Cracker Gel.

METHOD OF APPLICATION: Protect well all surfaces that should not be treated or splashed. Liquid is applied by brush spraying on the graffiti, let it act for a few minutes, and without rinsing with water Cracker gel is applied on top, to continue with the reaction of elimination of shadows. Finally, rinse with pressurized water. Hot water significantly increases its effectiveness. For more details see technical data sheet and/or application guides, and safety data sheet.

AVERAGE YIELD: 2 to 4 m² per liter.

2.- OPTION B - Cracker Gel (Liquid + Cracker Gel combined system)

DESCRIPTION AND MAIN USE: Graffiti cleaner with descaling action of pigments, as a remover of shadows that remain when stripping or cleaning graffiti. It has a remarkable deep action in the pores.

METHOD OF APPLICATION: Protect well all surfaces that should not be treated or splashed. Cracker Gel is applied in combined action with Liquid graffiti cleaner. Once **Liquid and Cracker** react, remove the remains with pressurized water, preferably hot. Cracker Gel can also be applied after stripping large areas of graffiti with Asur macs, in this case after removing the stripped residues with a trowel. It can be applied on surfaces resistant to alkaline solvents, with a synthetic bristle brush. For further details see technical data sheet and/or application guides, and safety data sheet.

AVERAGE YIELD: 3 to 5 m² per liter.

2.- OPTION C - Oxydizer Gel

DESCRIPTION AND MAIN USE: 1-component oxidizing cleaner used for the final and timely removal of graffiti shadows remaining after graffiti cleaning, especially in the case of marker pens, and on polished marble. Remaining graffiti pigments are dissolved by the oxidation process of Oxydizer, and the shadows disappear. Applicable on surfaces resistant to oxidation.

WAY OF APPLICATION: Protect well all surfaces that should not be treated or splashed. Apply Oxydizer with trowel or spatula the paste on the graffiti shadow or marker mark, and cover the application with opaque plastic encircled with adhesive tape, trying to create an airtight area. Leave to act between 6 and 24 hours, until the mixture eliminates the remains of pigments by oxidation. Remove the protective plastic and adequately eliminate the remains of the pickling product, to proceed to the final cleaning with pressurized water or synthetic bristle brush. For further details see technical data sheet and/or application guides, and safety data sheet.

AVERAGE YIELD: Approximately 100 to 400 ml/m².

3.- FK-12

PRODUCT SUMMARY: Concentrated water-based detergent cleaner, free of chlorine and formaldehyde, biodegradable and compatible with moisture. Wide range of applications and sectors, for use both indoors and outdoors, on horizontal and vertical surfaces.

For cleaning moisture damage on surfaces of various materials; saltpetre blooms, lime blooms, surface damage

caused by the action of microorganisms such as mould, moss, bacteria and biofilm matrix, as well as medium-grade pollution. Mainly used in industry in general, food industry, health sector, establishments in general, restoration of facades and heritage, civil works.

It presents a notorious descaling power of penetration, leaving the pore of the base, clean, open and receptive for later treatments; consolidators, protectors, waterproofing impregnations, primers, paints and coatings, anti-graffiti protections, etc. Its tensoactive components facilitate the neutralization of the base, after rinsing with water. With Declaration of Conformity.

MODE OF APPLICATION: Application from concentrated to dissolved 1:4 in water as a general rule. Adapt the dissolution according to the needs and conditions of each surface. The higher the concentration, the faster the action, and the higher the capacity to clean the damage. Especially to eliminate lime and microorganisms in wood will be applied without dilution.

Once the dissolution is done, apply preferably from the upper area, with brush, sponge, mop, spray, as appropriate in each case:

- Insist where the reaction is triggered and rub the affected area with brushes.
- Rinse with water before the product and the dissolved dirt dry.
- Allow to dry before proceeding with other treatments.

CONSUMPTION - PERFORMANCE: It is very variable, depending on the solution used, type and absorption of the surface, method of application, type and degree of dirt or affection, so its average performance can vary between 4 m² and 15 m² per litre of concentrate.

4.- OPTION A - macs FLUOROSIL Classic

DESCRIPTION: Fluorosil Classic is a water-based impregnation based on new C6 water-repellent and oil-retardant technologies, with modified fluorinated compounds specifically designed to form anti-adherent and transpirable graffiti protection. Fluorosil Classic is deposited in the capillaries of the pores in the mineral base and, thanks to its water-repellent and oil-retardant qualities, protects from deterioration and the penetration of rainwater, dirt, grime and pollution, while preventing the effective adherence of graffiti. Fluorosil Classic anti-graffiti impregnation is certified by RAL Deutsches Institut and by BAST Bundesanstalt für Straßenwesen. Fluorosil is highly transpirable (Value SD = 0.02), transparent, matt, barely altering the visual appearance of the base. It is resistant to ultraviolet rays and is considered a permanent protection for wash-resistant surfaces such as concrete (up to approx. 10 washes with pressurised hot water). Graffiti can be eliminated from surfaces protected with macs Fluorosil Classic by repeated washes with pressurised hot water, or may alternatively be eliminated using macs Liquid or Coco-paste.

MAIN USE: Fluorosil Classic provides ideal colourless, water-repellent and oil-retardant and anti-graffiti protection for absorbent mineral bases, mainly on façades. Specifically recommended for use with concrete and other hard, absorbent mineral surfaces such as exposed brickwork, clinker etc. on bridges, façades, buildings, etc., providing protection against graffiti and environmental dirt and grime in general. Fluorosil Classic can be applied, although with some limitations, to low-consistency absorbent mineral bases, such as brownstone or limestone, although in these cases, as a result of their low resistance to water under pressure, the effect of the product may not be permanent, unless the base has previously been consolidated in mineral terms.

HOW TO APPLY: Carefully protect all surfaces that are not to be treated from splashing. Fluorosil Classic is ready for use and must not be diluted. Before opening shake thoroughly to obtain a homogeneous liquid. Following suitable preparation of the surface and on dry surfaces, Fluorosil Classic can be applied with an Airless spray gun with a nozzle between 0.012 and 0.30 inches, at an angle of between 20° and 40°, and at 80 bar; or using a short-pile roller (gloss paint roller), criss-crossing the surface, by brush or by spray, immediately spreading the product with a roller to avoid runs or drips. Fluorosil Classic must always be applied working from the bottom up to avoid running and the leaving of marks. The first coat must be applied abundantly, although without letting the product run. The second coat must then be applied while the first is still slightly wet. These two coats are to be applied relatively quickly, one after the other, working wet on wet. The time between coats will be determined by the absorption capacity of the surface and its temperature and, as a result, may vary greatly, between 10 minutes and 1 to 2 hours.

FK-111 mixed with water, at a ratio of 1:10 is recommended for cleaning the utensils employed, subsequently rinsing them with clean water. In case of doubts please consult our technical consultancy service. For more information consult the specifications sheet and/or application guidelines, along with the safety sheet. Surface treatment is possible at temperatures between 5° and 25°C. Surfaces must be protected from rain for 5 hours following treatment.

AVERAGE YIELD: macs Fluorosil Classic provides an average yield of 2-6 litre/m², with approximate consumption of between 150 ml/m² - 500 ml/m², depending on the absorption of the base.

4.- OPTION B - macs Eposilan Plus

DESCRIPTION: macs Eposilan is a two component anti-graffiti protective varnish, formulated with epoxy-modified siloxanes and with high solid content (Ultra-High Solid Epoxy Siloxan). Macs eposilan creates a very low thickness film with high brightness, color enhancement and excellent resistance.

MAIN USE: macs Eposilan is a permanent two-component antigraffiti, suitable for being applied on interior walls and facades with low absorption, as painted surfaces, lacquered metal and enameled wood, metals such as aluminum, stainless steel, copper, galvanized (etc.), very low absorption mineral surfaces as tile, ceramic, natural stone and polished granite and marble.

HOW TO APPLY: Protect all surfaces that should not be treated or splashed. Macs Eposilan Plus should be applied undiluted, mixing A + B. Pour and remove the content of the container of component B (the hardener) slowly into the vessel of component A in the correct mixing ratio indicated on the package and stir with a shaker at low speed, until it is mixed homogeneously. Apply undiluted with brush, short hair roller for high solids epoxy, or airless, crosswise. Apply a single thin layer and let dry. If too much material is applied, the drying of the varnish may be deficient, and it could reduce product adhesion and consequently its pot-life. Pot-life at 20°C - 4 hours, at 30°C - 90 minutes. Complete chemical resistance only after approx. 1 week (with drying > 23 ° C). It is recommended to clean tools with solvent before the product catalyzes. For further details see technical data sheet, application guides and safety data sheet.

AVERAGE YIELD: The average consumption of Eposilan Plus macs is 40-60 ml. Per m² (20-25 m² / l) for non-absorbent bases.

4.- OPTION C - GRAFFI-PROTECT

DESCRIPTION: Graffi-Protect is a renewable, colourless surface protector. Solvent free, satin finish and formulated on the basis of wax and paraffin micro-emulsions, it protects the painted finishes and synthetic mortars used on façades from graffiti. Graffi-Protect forms a fine, breathable protective film that prevents the surface adherence of paints, graffiti or dirt and grime, while ensuring a notable improvement in water-repellent capacity. Paint and graffiti can subsequently be eliminated using pressurised hot water (+80°C), further accelerated with the use of façade cleaners such as FK-111 or anti-graffiti cleaners such as macs Liquid or Cocopaste. This process eliminates both the protective film and the graffiti and consequently, after cleaning the protector will have to be applied once more.

MAIN USE: Graffi-Protect is particularly recommended for application on façades on which synthetic rendering or paints have been used, as well as mineral bases (as an alternative to macs Fluorosil Classic) to avoid paint and graffiti adhering to the existing base. Treatment of the surface is possible at temperatures ranging from 5° to 25°C. Surfaces must be protected from rain for at least 5 hours following treatment.

HOW TO APPLY: Carefully protect all surfaces that are not to be treated from splashing. Graffi-Protect is ready for use, although it can be diluted up to 10% by adding water. Before opening the container shake thoroughly to obtain a homogeneous liquid. Application by means of an airless spray gun or a short-pile roller (gloss paint roller), criss-crossing the surface, or using a brush, immediately distributing the product with a roller to avoid runs. Must always be applied working from the bottom up to avoid the material running and leaving marks. The first coat must be applied abundantly, although without letting the product run. The second coat must be applied while the first is still

slightly wet. These two coats are applied relatively quickly, one after the other, working wet on wet. The time between coats will be determined by the absorption capacity of the surface and its temperature and, as a result, may vary greatly: between 10 minutes and 1 to 2 hours. In case of doubts please consult our technical assessment service. For more information consult the specifications sheet and/or application guidelines, along with the safety sheet. FK-111 mixed with water, at a ratio of 1:10 is recommended for cleaning the utensils employed, subsequently rinsing them with clean water.

AVERAGE YIELD: Graffi-Protect provides an average yield of between 6 and 10 m²/l, with approximate consumption of between 75 ml/m² - 150 ml/m², depending on the absorption of the base. In the case of absorbent bases it may be greater.

IMPORTANT NOTE:

This implementation guide is a general recommendation. On particular cases there may be additional recommendations or variations. If you have any doubts or would like a personalised technical prescription, please contact us using the [contact form](#) on this website.

APPLICATION GUIDES LEGAL ADVICE:

FAKOLITH CHEMICAL SYSTEMS, S.L.U. (FCS) applies a quality management system, and manufactures under HACCP for the food industry and health sectors, among others. Fakolith is certified by TÜV Rheinland Cert GmbH for ISO 9001: 2015 standard. FCS is a company of the FAKOLITH group in Spain, dedicated to developing, manufacturing, importing and commercializing paints and special industrial treatments. As our corporate purpose reflects, the legal responsibility for the application of the products is always out of our reach. FCS has a policy of R.C. of products with international coverage, except USA and Canada, of up to three million euros for damages caused by possible manufacturing defects.