



FAKOLITH[®]
chemical systems

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Painting and/or repair, color homogenization and protection of precast concrete facades with Multilite Color and Multilite MonoCrom silicate mineral glazes

Description of the problem

It happens very often that the aesthetic or coloring finishes of concrete and its precast elements are not uniform or homogeneous. In addition, it has been proven that mass pigmentation also leads to unevenness and inhomogeneous finishes. On the other hand, leaving a mineral base, in this case concrete, exposed to the elements without adequate protection is not very advisable. Rain, sun, thermal changes, ambient humidity, temperatures below 0°C... are determining factors that with the passage of time cause pathologies such as: surface deterioration, efflorescence of hygroscopic salts, abundant microbial infections, degradation of the mineral base, oxidation of the internal structures...etc.



Therefore, the combination of the following treatments provides properties of maximum importance for the correct conservation and long-term protection of the concrete.

All this, without creating superficial skins that peel off, or shine, or yellowing, avoiding the appearance of salts on the surface, microorganism infections, respecting the values of transpiration, mineralizing and consolidating, homogenizing the color with oxide pigments, and preventing the filtration of rainwater through the water-repellent protection, which will also prevent the penetration of dirt inside the concrete, prolonging its desired aesthetics and its physical-chemical properties and resistance for much longer.

Summary of the most common basic solution and procedure

1. CLEANING OF THE BASE:

- FAKOLITH FK-12: Always apply the damp damage cleaner, **FK-12**, such as mold damage, saltpeter, biofilm, light pollution, remains of release agents ... on all surfaces to be rehabilitated. After its subsequent rinsing with water and air drying, the base will be cleaned and its pores will be free of impurities that prevent its necessary absorption values for the following treatment.

2. VOLUMETRIC RECONSTRUCTION:

Our family of elite mortars with multifunction additives effectively solve applications from 8 mm to 20 cm, in a single coat, both in repairs of major flaws, cracks, cornices, degradation of other mortars, masonry breaks, cracks, fissures, as well as for finishing new plaster and screeds.

- **Option A** - ELITE CAL PLUS MORTAR: This is the most widely used plaster mortar in the restoration of facades and heritage. It requires its Multilite additive. For vertical applications of very low thickness, up to 2mm, there is the option of **Elite Smoothing Mortar**, also enriched with its **Multilite** additive. The **Elite Smoothing Mortar** can also be applied over the **Elite Lime Plus Mortar**, in just a few microns, to achieve a very smooth finish.

- **Option B** - ELITE EXTREME MORTAR: The version with greater physical resistance of our elite plastering mortars, it is close in performance to the resistance of concrete, without losing its properties of ease of application and malleability. It is indicated for extreme situations and maximum durability. It requires its Multilite additive. For specific structural repairs, our **elite R3 mortar** is available.

3. FINISHES WITH SILICATE MINERAL GLAZES:

Fakolith mineral glazes allow, in addition to consolidating or mineralizing new or restored mineral bases, where they are applied, to provide them with a monochromatic or natural mineral polychromatic finish, as the case may be, without creating a surface layer. Fakolith mineral glazes are chemically anchored with the mineral base by silicification. They cannot flake off, have high penetration, high chemical and environmental resistance and resistance to UV rays, which gives them a long durability. The appearance of the mineral base restored with our glazes recovers its original appearance and perpetuates it over time.

Note: Especially in situations where the concrete has very low absorption values, or where a quick and effective solution is required, you can choose to paint with **Disperlith facade repair**.

- **Option A** - MULTILITE MONOCROM: Normally, we recommend applying the consolidating silicate mineral glaze, with monochromatic and uniform effect, in the mineral color of the chart, or pigmented by the applicator in situ with Mixol oxide pigments. The base will be consolidated and the aesthetics will be adequate to the required color effects.

- **Option B** - MULTILITE COLOR: Or alternatively, the consolidating silicate mineral glaze will be applied, with polychromatic effect, in the mineral color of the chart, or pigmented by the applicator in situ with Mixol oxide pigments. The base will be consolidated and the aesthetics will be adequate to the required polychromatic effects.

4. WATER REPELLENT AND FINAL ANTI-GRAFFITI PROTECTION:

To achieve long-term protection and preservation of mineral bases, water repellency, oil repellency and adequate anti-graffiti protection with breathable properties are the highly recommended treatments. They will provide long-term protection of mineral surfaces against environmental factors such as man-made contamination, pollution, graffiti and graffiti. Thanks to our innovative formulations with nano-poly siloxanes and innovative C6-C8 fluorinated compounds, our water repellents and protectors penetrate the base without creating a surface film or altering the breathability, respecting the natural appearance of the bases.

- **Option A** - FAKOLITH FK-7: Special application recommended for facades to be restored, of the polyvalent water repellent with BioFilmStop technology, to protect the mineral base against humidity and its consequences. The moisture absorption of the base coat will be drastically reduced and its long-term durability will be prolonged.

- **Option B** - FAKOLITH FK-3 PLUS: On freshly applied fresh plaster with high alkalinity, as well as generally absorbent screeds, this will be the recommended water repellent and oil repellent. In very low absorption surfaces such as polished stone, it should be replaced by **FK-4 Extreme**. In pavements or situations where there is a greater risk of spills or a satin finish is required, use **FK-7 NanoTane**.

- **Option C** - MACS FLUOROSIL CLASSIC- In lower parts of buildings, especially on absorbent substrates, the previous water repellents can be replaced by the anti-graffiti protector **macs Fluorosil Classic**, which adds protection against graffiti and graffiti to the water-repellent properties. On substrates with low absorption or very small pores, such as polished marble, **macs Eposilan Plus** anti-graffiti protector should be used.

Application process

1.- 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.

2.- OPTION A - MORTERO ELITE Cal Plus Crema

DESCRIPTION: Mortero Élite Cal Plus is a rendering mortar, mixed with lime, category F1 CS IV W2, with EC Marking. In a standard issue cream-colour, with a granulometry of 01, excellent thixotropy that, along with the elite system additives, will always allow for applications of thick coats in cases of volumetric re-composition. Brings excellent workability, plasticity, along with optimised times for subsequent cutting and finishing. Its lime composition increases compatibility with old surfaces, on which its setting, congruity, melding, breathability and durability values are of particular importance.

MAIN USE: Mortero Élite Cal Plus mortar is ideal for restoration work and the creation of rendered elements that will work on both functional and decorative levels, for the restoration of façades and heritage work, new-builds, civil engineering in general, construction, the food industry, the health sector, industry in general, etc. Mainly for use on vertical and horizontal surfaces, as well as surfaces in immersion, including saltwater immersion.

ALWAYS USE WITH ÉLITE ADDITIVES:

- MULTILITE: Silicate additive that provides plasticity, consolidation, open-time workability and an increase in physical/chemical resistance.
- FK-19 Plus: Pure acrylates/polyurethane additive that provides impermeability, plasticity and an increase in physical/chemical resistance.

HOW TO APPLY: Carefully protect all surfaces that are not to be treated from splashing. The support must be consistent, clean, free of hygroscopic salts, microorganisms, dust, mould-release agents, paint or any other substance that could affect adherence. The base needs to have been duly primed and all possible fissures or cracks in the base, caused by retraction or settling, etc. will need to have been stabilised.

1. Prepare the elite additive mix and add water, in a proportion of 1 litre of additive for every 6 litres of water. Immediately before adding the mortar prime the mineral base using the same solution of elite additive and water that you used for the mix.

2. Mix the mortar with around 5.7 to 6.2 litres of the solution for every 25 kilos of the Élite Cal Plus mortar until you have obtained a homogenous blend, free of lumps, and then go ahead with immediate application, either by hand or by spraying. The indicated range for mix ratios will vary depending on the ambient temperature, absorption of the base and whether or not it is to be applied by hand or using a mortar spraying machine. In each case we recommend using as little as possible of the solution. If cracks or fissures appear after drying this will be because too much liquid has been used. In case of doubts prepare previous samples to determine the ideal ratio.

3. Manual application: Firstly spread a fine coat over the support, pressing down to squeeze any air out and then gradually build up until you obtain the required thickness, up to a recommended maximum of 15-20 cm. For machine applications, spray directly onto the surface until the required thickness has been obtained.

4. After the mortar has been levelled you will have to wait for approx. 1 to 2 hours before you can give it shape, etching, scraping or theming it. The mortar will remain workable for at most 4 to 12 hours following application, although this will vary depending on temperature and humidity conditions.

5. After doing the texturing work leave to dry for 24 hours, in which time the last effects can be added, before going ahead with the finishing work.

6. At singular points, such as structural joints, areas where different materials meet, such as windows, and in general for significant thicknesses when doing volumetric reconstruction and professional theming work, etc, it is recommended that an intermediate mesh be incorporated to reinforce and hold the coat together, increasing both resistance to stresses and shrinkage.

7. When application is complete clean the utensils, the machinery and/or hoses with water immediately after use, before the mortar can go off.

NOTE: This is a thixotropic mortar; if it starts to solidify re-stir it and it will recover fluidity. Under no circumstances add more water. For more information regarding special applications consult the specifications sheet and/or application guidelines, along with the safety sheet.

AVERAGE YIELD-CONSUMPTION: Approx. 16 Kg/m² of Mortero Élite Cal Plus mortar, plus 0.55 litres of elite additive per centimetre of thickness. Approx. 0.85 litres of elite additive will be consumed for each 25 kg of Mortero Élite Cal Plus.

2.- OPTION B - MORTERO ELITE Extreme

DESCRIPTION: Elite Extreme mortar is a plastering mortar category CS IV and CE marked (more than triples the standard resistance of 6 N/mm², reaching up to 20 N/mm² with proper curing). Standard in white color and granulometries 01 and 0.2, excellent thixotropy that always together with the additives of the elite system, allows the application of large thicknesses for volumetric recombination, with excellent workability, plasticity and optimized open time for subsequent carving and finishing.

MAIN USE: Elite Extreme mortar is recommended wherever the best possible performance in a CS IV plastering mortar is required. Due to its special composition, it provides high hardness and resistance, for the creation and restoration of horizontal and vertical surfaces, both indoors and outdoors, as well as for immersion. High thixotropic performance, applications from 0.5 cm to 15 cm volume in a single coat. Suitable for the creation of plaster elements, both functional and decorative, in the restoration of facades and heritage, in new construction, civil works in general, construction, food industry and health sector, industry in general, etc.. mainly in vertical and horizontal surfaces and in immersion even in salt water in special situations such as theming work in general, in aquariums, zoos and the like.

ALWAYS USE WITH ELITE ADDITIVES:

- MULTILITE: silicate additive that provides plasticity, consolidation, open time workability and increases physical/chemical resistances.

- FK-19 Plus: pure acrylate and polyurethane additive, which provides waterproofing, plasticity and increases

physical/chemical resistance.

WAY OF APPLICATION: Protect well all surfaces that should not be treated or splashed. The support must be well consolidated and consistent, clean, free of hygroscopic salts, microorganisms, dust, release agents, paint or any other substance that may affect its adhesion. The mineral substrates where it is applied must be properly primed and all possible existing cracks due to shrinkage, settling, etc., must also be stabilized.

1. Prepare the mixture of multilite or FK-19 Plus + water in a proportion of 1 liter of additive for every 5 liters of water. If it is applied over a mineral base, prime it with the same elite + water admixture solution that will be used for its mixing, just before applying the mortar.
2. Knead the mortar from 4.2 to 5.2 liters of solution per 25 kg of elite Extreme mortar, until a homogeneous, lump-free mass is obtained, to proceed with its immediate application, either by hand or sprayed. The indicated range of mixing ratio varies depending on the temperature of the environment, absorption of the base, thicknesses and its use by hand or with a spraying machine. We recommend in each case, to use the smallest possible amount of solution; if after drying it presents cracks it is because too much liquid part has been used, in case of doubt make a previous sample to determine the ideal ratio.
3. For its use by hand: Spread first a very thin coat on the support pressing so that the air comes out, and then build up again until obtaining the required thickness, with a recommended maximum of 15-20 cm.
4. For use with a machine, spray directly until the desired thickness is reached, adjusting the appropriate viscosity just at the beginning of the projection.
5. Once the mortar has been levelled, wait approximately 1-2 hours to be able to give it the required shape or planimetry, trim, scrape, theme, with the maximum period of workability starting from 6-12 hours from its application, variable depending on the thickness applied, the temperature and the ambient humidity.
6. Once the texture works have been carried out, it will be left to dry for 24 hours, time in which the last effects can be carried out, and proceed with the finishes.
7. In special situations or singular points like structural joints, unions between different materials, windows, and in general for great thicknesses in volumetric reconstruction and professional thematization, etc, it is convenient the incorporation in the intermediate part of a reinforcement mesh to reinforce it, increasing the resistance against tensions or dilatations.
8. After the application, clean the tools, machinery and/or hoses with water immediately after use, before the mortar sets.

NOTE: It is a thixotropic mortar, if it loses fluidity, shake it again and it will fluidize. Never add more water. For further details and special applications, consult technical data sheet and/or application guides, and safety data sheet.

CONSUMPTION - AVERAGE YIELD: Approx. 18-20 Kg/m² of elite Extreme mortar + 0.55 l of elite additive per 1 cm of thickness. Approx. 0.85 l of elite additive is consumed per 25 kg of elite Extreme mortar.

With Multilite in hand application:

- For plastering up to 1-1.5cm / thickness: between 4.4l.- 4.6l. of solution / 25kg bag (0.75l.-0.80l./multilite / 25kg bag).
- In applications over 1,5cm: between 4,2l.-4,5l. of solution/bag 25Kg. (0,70-0,75l./multilite/bag 25Kg.)
- Application with spraying machine: between 4,8l.-5l. of solution/bag 25Kg) (0,80-0,75l./multilite/bag 25Kg).

With FK-19 Plus, application by hand:

- For plaster up to 1-1,5cm thickness: between 4,6l.- 4,8l. of solution/bag 25Kg (0,75l.-0,80l./FK-19 P./bag 25Kg).
- In applications over 1,5cm: between 4,4 l. - 4,6 l. /bag 25Kg. (0,70-0,75l./FK-19 Plus/bag 25Kg)

- Application with spraying machine: between 5 l. - 5,2 l. /bag 25Kg) (0,85-0,9l./FK-19 Plus/bag 25Kg)

3.- OPTION A - MULTILITE Monocrom

PROPERTIES: Mineral glaze/veil based on a complex potassium silicate micro-emulsion, in a water-based dispersion, for use on interior and exterior mineral bases. With an organic material content of less than 5% of total formula weight, in compliance with the German DIN 18363 Standard. Specifically designed for exclusive use on mineral bases, as Multilite Monocrom ends up forming a part of the substrate, due to a process of silification, by chemical bonding, to form a single body that is insoluble in water but highly breathable ($SD < 0.02$). Can be pigmented using Mixol Óxidos and/or other oxide colours, subject to order. Multilite Monocrom, unlike Multilite itself, unifies the different oxide pigments used in pigmentation, mostly blending them into a unique colour in order to provide a homogeneous tone. Should you wish to make up a glaze colour of your choice, Multilite Monocrom is transparent and white and is available with a chart of colours and can also be pigmented, using at most 3%-5% of Mixol oxides. Because it does not form a surface film, due to its penetrating qualities, Multilite Monocrom will not alter the texture of the mineral base treated, making this an extremely natural, effective and lasting treatment.

MAIN USE: Multilite Monocrom is used as a penetrating, coloured mineral glaze for absorbent mineral bases, concretes, mortars, micro-mortars, paved floors, façades, heritage work, professional theming, etc.

HOW TO APPLY: Carefully protect all surfaces that are not to be treated from splashing, particular glass, metal or lacquered surfaces, wood, etc. Apply Multilite Monocrom using brushes, rollers or an airless spray gun. It must not be diluted with water or solvents. We recommend the application of 2 coats, leaving a drying interval of 12 hours between each coat. Clean utensils immediately after use with solvent. For optimum durability the system can be approved through the subsequent application of FK-7 or FK-3 Plus Nano water-repellent protector. For more information consult the specifications sheet and/or application guidelines, along with the safety sheet.

AVERAGE YIELD: Multilite Monocrom provides a yield of approx. 4-6 m²/litre and an average consumption of between 150 and 250 ml/m², although this may vary considerably, depending on how it is applied and the texture and absorption of the base.

3.- OPTION B - MULTILITE Color

DESCRIPTION AND MAIN USES: Multilite is a modified potassium-methyl-siliconate concentrated multipurpose additive exclusively for use on mineral bases and mortars. It does not alter breathability or the diffusion of vapour and is compatible with damp. Easy to apply and manage it provides a considerable consolidating effect, due to the chemical process of silification, through which it establishes insoluble chemical bridges with the mineral products that will fuse the Multilite to its mineral base. This product's multipurpose characteristics enable it to function as an additive that will improve the performance of elite mortars, as a consolidated mineral primer or as a mineral glaze, when pigmented with Mixol oxides. Multilite can also be used as a primer, both for consolidation and decoration during the restoration of façades and for heritage work, new build, civil engineering in general, construction, theming work, embossed paving, the food industry and the health sector, industry in general, etc. For use on vertical and horizontal surfaces, or even for immersion in salt water. Can be applied at ambient and base temperatures of 5°C and over.

HOW TO APPLY AND AVERAGE YIELD/CONSUMPTION DEPENDING ON FUNCTION:

Carefully protect all surfaces that are not to be treated from splashing, particularly glass, metal or lacquered surfaces... The support will have to be consistent, clean, free of hygroscopic salts, micro-organisms, dust mould-release agents or any other substance that could affect adherence. Applicable at temperatures over 5°C.

- Consolidating mineral glaze: Multilite Color, whether pigmented using Mixol oxides or the series colours of the Fakolith consolidating mineral glaze colour chart, is an excellent consolidating translucent glaze for virtually all absorbent mineral surfaces, vertical, horizontal and also immersion, where the pigments are encapsulated in insoluble silicon crystals. When used in this way Multilite provides a variable yield of approx. 3-5 litre/m², depending on function and type of base. For optimum durability the system can be improved with the subsequent application

of the waterproof protectors FK-7 or FK-3 Plus Nano.

Clean utensils immediately after use with soap and water. For more information consult the specifications sheet and/or application guidelines, along with the safety sheet.

4.- OPTION A - FK-7 (CE Marking)

DESCRIPTION: FAKOLITH FK-7 is a concentrated, water-miscible, consolidating water-repellent, micro/nano dispersion, with CE Marking test data, effective against micro-organisms, with penetrating action, colourless and highly breathable. Provides effective protection against environmental influences and the causes and consequences of dampness in absorbent construction materials. The micro/nano dispersion of the FK-7 modified nano silane-siloxanes results in a "dew-drops" water-repellent effect. Once dissolved in potable water the mix is low voc and reacts with the construction element to which it has been applied, producing a water-resistant area, while at the same time allowing for the complete dispersion of water vapour (SD = 0.02), presenting excellent resistance to environmental influences and UV rays. Due to its high level of breathability FK-7 will not compromise the correct curing of the base material. Stable with regard to meteorological changes it rejects dirt and grime. Protects against harmful, hygroscopic salt bloom on construction elements and counteracts the appearance of damp patches originating inside walls. Another important function is that it highlights and maintains the natural colours of the surfaces it is applied to. Activates transpiration by drying damp patches and, due to its BioFilmStop technology, FK-7 is also highly resistant to mould and algae. Can be applied to damp surfaces, as it transmits through water. Particularly recommended for concrete structures where, due to its penetrability and protection against damp, it protects by inhibiting corrosion of the internal rebar-reinforcing, in this way prolonging useful life.

BIOFILMSTOP SANITARY TECHNOLOGY: FK-7 is an intelligent water-repellent, treated with BioFilmStop Inhibition Technology, and highly resistant to mould and microorganisms, DIN-UNE EN 15457:2008 ((Aspergillus, Cladosporium, Penicillium, Algae...), as well as bacteria ISO 22196:2011. The products in the BioFilmStop range positively contribute to compliance with (EC) 852/2004, and are manufactured subject to HACCP and GMP (EC) 2023/2006, also notably improving HACCP, food safety and asepsis for the user company. Declaration of Conformity – Health Register FAKOLITH RGSEAA ES-39.005259/T y ROESP E-0043-E.

MAIN USE: FAKOLITH FK-7 is ideal for the waterproofing, conservation, drying and strengthening of almost all porous or absorbent mineral materials, such as natural and artificial stone, concrete, mineral based paints and coatings, absorbent ceramics; and also for wood, interior or exterior and subject to a wide range of climactic conditions, principally on vertical wall surfaces and façades. FK-7 is the ideal water-repellent for restoration processes on surfaces suffering from damp pathologies. Apt for application in drilled rising damp treatments, request additional information. Mainly for use on façades and for rehabilitation, heritage projects, theming, civil engineering, industry in general, the food industry, etc. Limitations: Any type of polished base that lacks capacity for absorption (in these cases use FK-4 Extreme). Extremely alkaline, white or fresh cement bases (in these cases use FK-3 Plus N). Interior or exterior natural stone bases with water lixiviation with surface creep (limited function).

WATER THINNING: Generally speaking concentrated FK-7 should be diluted at a ratio of 1:14. For bases with rising damp, in order to enhance the natural colour of the mineral surface, and also in the case of woods, dilute using potable water, at a ratio of 1:9. Solely mix the quantity that you will be using during the day, given that the mix will only remain stable for around 8-12 hours and should not be used once that time has elapsed.

HOW TO APPLY: Carefully protect all surfaces that are not to be treated from splashing. Following suitable preparation of the surface, apply FK-7 2 or 3 times in a row using brushes, rollers or spray guns, each time on top of the previous coat while it is still wet, and always working from the bottom up. Make sure you clean all utensils immediately after use with water. Only apply the quantity that can be absorbed by the surface to be covered and avoid applications that will leave excess product on the surface. Will resist rain 24 hours after application, although the full water-repellent affect does not occur until several days have passed. Applicable at temperatures of 2-3°C or over. For more information consult the specifications sheet and/or application guidelines, along with the safety sheet.

AVERAGE YIELD: FK-7, when undiluted, provides a yield of approx. 20-60 litres/m², although this may vary considerably depending on type of surface and method of application. Average consumption in solution is approx.

250 ml/m², although this may also vary between 100 and 500 ml/m².

4.- OPTION B - FK-3 Plus N (CE Marking)

DESCRIPTION: FK-3 Plus N is a water-based, concentrated, (low Voc) micro/nano emulsion water-repellent and oil-retardant, with CE Marking test data, solvent free and formulated on the basis of nano-silanes, siloxanes and innovative, modified C6 fluorinated compounds, free of PFOA and PFOS, providing excellent in-depth action and high resistance to alkalinity. The finish is colourless, although it does tend to enhance the tone of the base, particularly higher concentration applications are used. Provides protection against deterioration of horizontal and vertical surfaces, due to water absorption, and against the adherence of dirt and grime. For colourless, oil-retardant and water-repellent conservation and protection of virtually all absorbent mineral material surfaces, both interior and exterior. Does not form a surface film as it penetrates into the pores of the base material, providing long term protection against pollution dissolved in water, against frost deterioration, against the spread of micro-organisms, hindering the in-depth adherence of dirt and grime, and facilitating both cleaning and maintenance work. Does not result in significant physical changes to the treated base, particularly in terms of breathability (Value SD = 0.02). Because it is highly breathable, FK-3 Plus N will not negatively affect the correct curing of the base. The oil-retardant properties do not come fully into effect until several days have elapsed following correct application. The water-repellent effect usually shows itself in the form of dew drops or beads. FK-3 Plus N is a product that does not form a film, and has been designed to notably improve the qualities of resistance to water, oils grime and dirt, facilitating maintenance and extending useful life.

BIOFILMSTOP SANITARY TECHNOLOGY: FK-3 Plus Nano is an intelligent water-repellent, treated with BioFilmStop Inhibition Technology, and highly resistant to mould and microorganisms, DIN-UNE EN 15457:2008 (Aspergillus, Cladosporium, Penicillium, Algae...), as well as bacteria ISO 22196:2011. The products in the BioFilmStop range positively contribute to compliance with (EC) 852/2004, and are manufactured subject to HACCP and GMP (EC) 2023/2006, also notably improving HACCP, food safety and asepsis for the user company. Declaration of Conformity – Health Register FAKOLITH RGSEAA ES-39.005259/T y ROESP E-0043-E.

MAIN USE: FK-3 Plus N is ideal for all manner of absorbent natural and artificial stone, micro-cements, mortars and concretes, even when recently set and with high levels of alkalinity, mineral paints and claddings, refractory, clinker, exposed, roof tiles, lime stucco and similar; earthenware floor and absorbent ceramic tiles, swimming pool copings, slates, etc. Mainly for use on façades, heritage work, flooring tiles, theming, civil engineering, industry in general, the food industry, housing, hotels, skirting boards, tourist establishments, public squares, chalets, restaurants, kitchens, washrooms, etc. Limitations: Any type of polished base that lacks capacity for absorption (in these cases use FK-4 Extreme), vertical mineral surfaces with previous infections (in this case use FK-7) and interior or exterior natural stone surfaces with water lixiviation with surface creep.

WATER THINNING: Depending on the type of surface, the level of protection and the visual finish required, for maximum protection it is recommended that the product be applied in a minimum solution of 1:6 (generally on floor tiles), or up to a solution of 1:14 (generally for waterproofing work on façades). The more diluted in water it is the less the oil-retardant affect will be, and the less it will enhance the surface colour. The more concentrated it is the greater its oil and water resistance characteristics will be, as well as the enhancement of the tone of the base.

HOW TO APPLY: Carefully protect all surfaces that are not to be treated from splashing. Following suitable preparation of the base, and on dry surfaces, apply FK-3 Plus N 2 or 3 times in a row using brushes, rollers or spray guns, each time on top of the previous coat while it is still wet, and always working from the bottom up. Once dry it will not take a second coat. Clean utensils immediately after use with water. Only apply the quantity that can be absorbed by the surface to be covered and avoid applications that will leave excess product on the surface. Where necessary eliminate any excess product applied using a rag before it can dry, as it will leave yellowish stains if this is not done. Any splashes or dry remains left on other surfaces will have to be eliminated as quickly as possible using a solvent. Will resist rain 24 hours after application, although the full water-repellent affect does not occur until several days have passed. For more information consult the specifications sheet and/or application guidelines, along with the safety sheet.

AVERAGE YIELD: FK-3 Plus N, when undiluted, provides a yield of approx. 20-60 litre/m², although this may vary considerably depending on type of surface and method of application. Average consumption in solution is approx.

250 ml/m², although this may also vary between 100 and 500 ml/m².

4.- OPTION C - 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.

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.