



Hygienic paint for walls and ceilings in food industry and health sectors, to solve problems caused by humidity, mold, saltpetre, biofilm, bacteria ...

Description of the problem

Especially in the food industry, but also in other health-related sectors, in the paper industry, in industry in general, in buildings with construction pathologies, and in prone climatic zones, the existence of fungi and mold on interior and exterior walls and ceilings, together with other pathogenic microorganisms such as bacteria and biofilm, and viruses, is very common. Industrial processes, humidity, condensation, temperature and the climate generated, cause mold to reproduce very visibly on a regular basis on these surfaces, which usually also present flaking, saltpetre, capillary humidity, corrosion, etc. Surfaces affected by mold, in many cases are traditionally painted with "anti-mold or anti-humidity paints" of low long-term effectiveness, which in the short term cover and whiten the infection, but cause a rebound effect, whereby the mold infection, after a short time, re-emerges from the interior of the base with more virulence. Fakolith as a pioneer with more than 50 years of international experience in paints and surface treatments to paint and renovate walls and ceilings affected by moisture, mold and microorganisms, here explains the basic procedure to solve these problems in the long term, with our Hygienic Paints, varnishes and enamels, treated with BioFilmStop antimicrobial technology (BPR Art 3).



The basic method consists of 3 steps:

- 1.- Cleaning and/or disinfection of surfaces.
- 2.- Priming of the surfaces, to ensure good adhesion and make it difficult for the infection to regenerate from the inside.
- 3.- Finishing with the more suitable Paint, enamel or varnish, of our Hygienic coatings range.

Summary of the most common basic solution and procedure

1. SURFACE CLEANING:

· **FAKOLITH FK-12:** Application of the moisture damage cleaner, such as mould damage, saltpetre, biofilm, and subsequent rinsing with water to remove damage. After drying, the base is ready for the next treatment. Alternatively, or if necessary, can be used the disinfectant **BIOFILMSTOP Cleaner** with HA Sanitary Registration, for the disinfection of bacteria, fungi, viruses, and/or the multipurpose industrial cleaner **FK-111** for greasy type dirt.

2. SURFACE PRIMER:

· **DISPERLITH PRIMER:** Application of the fixing nano primer with high resistance to humidity, to consolidate the base and prevent the infection regeneration from the inside. The base will be ready for the adequate adhesion of the most suitable Hygienic coating for each case.

3. SURFACE PAINTING:

Final finishing with 2-3 coats of the most suitable Hygienic coating treated with BioFilmStop Technology, among many sectors also suitable for use in the food industry (except direct food contact). Coatings with CE marking, with high resistance to moisture, cleaning and disinfection, and with high antimicrobial resistance tests with broad spectrum against fungi, bacteria, biofilm and viruses.

- **Option A - DISPERLITH INDUSTRY:** The most common single-component water-based paint for painting or repainting mainly wall surfaces and ceilings with cement mortar and concrete generally affected by mold, where there are traces of moisture in the base, transpiration will be the most convenient option.
- **Option B - DISPERLITH ELASTIC:** The most common coating for painting or repainting, ideal for non-absorbent surfaces, without traces of moisture in the base, where a waterproofing coating is required, with good elasticity, satin finish, and with the highest level of certification.
- **Option C - DISPAINT HYGIENIC Forte:** Innovative water-based enamel, fast drying, thin film and matte-satin finish, which is presented as the most versatile option on multiple surfaces, wood, primed metal, already enameled surfaces. For surfaces requiring good hardness, medium physical-chemical stress, with easy renovation and maintenance.
- **Option D - DISPERLITH POX:** this would be the water-based epoxy option, with good breathability in its category, also for use on substrates with traces of humidity, which offers better mechanical performance than the previous ones.

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.- DISPERLITH Primer

PRODUCT SUMMARY: DISPERLITH PRIMER is a water-based consolidating primer, with hybrid resins and quartz nano-spheres, ideal as a primer prior to painting with paints from the Disperlith range and dispersion paints in general.

Low Voc, fast drying, breathable and with high penetration in the base. Ideal for fixing, consolidating and bridging surfaces before painting. Can be applied on mineral bases, pladur®, bases painted with dispersion paints, mineral paints, sol-silicate, silicone resin and other paints and coatings that are deteriorated but well adhered to the base.

Highly moisture resistant primer, treated with BioFilmStop antimicrobial technology (BPR Art.3) effective against internal regeneration of bacteria, biofilm, moulds and yeasts.

MODE OF APPLICATION: Those bases that were affected by moisture and microorganisms should be pre-cleaned with the moisture damage cleaner FK-12.

After the cleaning has dried, the primer will be applied, without dilution, and according to the needs of each surface, 1 or 2 coats will be applied by brush, roller, spray or airless.

CONSUMPTION - PERFORMANCE: DISPERLITH PRIMER has a coverage of approximately 4-10 m²/l. Depending on the way of application, texture and absorption of the base coat it can vary considerably.

3.- OPTION A - DISPERLITH INDUSTRY

PRODUCT SUMMARY: DISPERLITH INDUSTRY is a hygienic and sanitary breathable paint, with matte finish, anti-humidity, with high resistance to humidity and its consequences. Formulated with modified acrylic copolymers in aqueous dispersion, low VOC, low odor, free of ammonia, APEO, formaldehyde, phthalates, BPA, heavy metals, polyhaloanisoles and polyhalophenols. Disperlith Industry is ideal for renovating surfaces affected by moisture, mold, mildew and microorganisms, and/or as a preventative to avoid their appearance. **Disperlith Industry is ideal for renovation and surfaces affected by moisture, mold, mildew and microorganisms, and/or as prevention to avoid their appearance.** As a finish for open surfaces, walls and ceilings, indoors and outdoors. Especially in food industry and health sectors, hospitals and clinics, and also in industry, civil works and public and private buildings in general. Paint recommended by the German BVLK, and certified as Excellent by Fraunhofer IPA for clean rooms and equivalent environments. **With Declaration of Conformity, Performance and CE marking.**

BIOFILMSTOP SANITARY TECHNOLOGY (Article treated BPR Art.3): DISPERLITH Industry is a treated paint (BPR Art 3 and 58) with broad spectrum BioFilmStop antimicrobial Technology. With **effectiveness ≥99.9%** and tested in various official R&D&I projects and external reference laboratories, under various regulations ASTM D2574-06, ISO 846, ISO 22196, ISO 15457:201, ISO 21702, etc., **against bacteria and biofilm** (Staphylococcus aureus MRSA, Listeria monocytogenes, Salmonella enteritidis, Salmonella enterica, Pseudomonas aureuginosa, Legionella pneumophila...) **fungi and molds** (Aspergillus niger, Aspergillus brasiliensis, Candida albicans, Chaetomium globosum, Paecilomyces variotii, Penicillium pinophilum, Trichoderma virens...) **and viruses** (Human Coronavirus, Feline Coronavirus). The paints and coatings of Fakolith's sanitary range contribute to comply positively with CE 852/2004, are manufactured under HACCP and Good Manufacturing Practices (GMP) according to CE 2023/2006, improving hygiene and food and sanitary safety of surfaces and environments. FAKOLITH Sanitary Registration: RGSEAA ES-39.005259/T and ROESP E-0043-E.

PROPERTIES: Excellent adhesion on multiple surfaces, resistant to weathering, carbonation and alkalinity of the base. Paint with good resistance to most disinfectants and cleaners DIN EN ISO 4628-2: 2004-01 (In case of doubt consult the Technical Dept.). Drying from 5°C. Tests CE marked (Tecnalia) UNE-DIN EN ISO 1504-2:2005 after 7 days of curing applying 2 coats of 240 gr:

- Abrasion resistance. Weight loss= 340 mg.
- Permeability to CO₂ Class III Sd >50 m (129)
- Permeability to water vapor Class I Sd <5 m (1.15)
- Liquid water permeability w<0.1 Kg/m²-h 0.5 (0.05) Class III.

- Tensile strength for rigid systems with traffic loads =4.36 N/mm².

According to DIN EN 13300:2002 and DIN EN 1062-1 it is wet scrub resistant Class 1 (<5 µm), coverage Class I (250 ml/m²), water vapor transpiration Class V2 (SD= 0.24 [m]), estimated Euroclass B-s1, d0. Paint/varnish tested with GC-MS-MS technique to determine the polyhaloanisoles and polyhalophenols profile in dry film, <0.50 ng/l. no risk of anisoles or precursors, suitable for use in wine cellars (DOLMAR).

METHOD OF APPLICATION: Compatible with most mineral surfaces, concrete, properly primed metals, lacquered panels and on other dispersion paints and/or primers previously well adhered and resistant to the test of cut by trellis Class 0-1 UNE-DIN EN ISO 2409:2007. For a good application of a product it is necessary to take into account the state and preparation of the base, which must be clean, consolidated and with adequate levels of humidity, for which we have a wide range of cleaners, disinfectants, deoxidizers, primers, water repellents, consolidants, insulators, mortars, putties. In case of doubt, please consult our technical advisory service.

Finished with 2 coats of Disperlith Industry hygienic sanitary paint, applied by brush, roller or airless. More information in the web section, solutions and application guides of our website.

CONSUMPTION - PERFORMANCE: Depending on the state and type of base we recommend between 200-333 ml/m², applied in 2 coats, with a total performance between 3 and 5 m²/l.

More information in its technical and safety data sheet, and in the web section solutions and [application guides](#).

3.- OPTION B - DISPERLITH ELASTIC

PRODUCT SUMMARY: DISPERLITH ELASTIC is a waterproof and elastic hygienic-sanitary paint, widely certified, with high physicochemical resistance in its category, high resistance to humidity and its consequences. Formulated with modified acrylic copolymers in aqueous dispersion, low VOC, free of ammonia, APEO, formaldehyde, phthalates, BPA, heavy metals, polyhaloanisoles and polyhalophenols. Satin finish in interiors and exteriors, excellent coverage, waterproof, adhesion and elasticity, low odor, fast drying and from low temperatures (>3°C). On open surfaces, walls, ceilings and roofs, indoors and outdoors. Especially in the food industry and healthcare sectors, hospitals and clinics, and also in industry, civil engineering and public and private buildings in general. Available in white, NCS colors and colorless varnish. **With Declaration of Conformity, Performance and CE marking.**

BIOFILMSTOP SANITARY TECHNOLOGY (Article treated BPR Art.3): DISPERLITH Elastic is a treated paint (BPR Art 3 and 58) with broad spectrum BioFilmStop antimicrobial Technology. With **effectiveness ≥99.9%** and tested in various official R&D&I projects and external reference laboratories, under various regulations ASTM D2574-06, ISO 846, ISO 22196, ISO 15457:201, ISO 21702, etc., **against bacteria and biofilm** (Staphylococcus aureus MRSA, Listeria monocytogenes, Salmonella enteritidis, Salmonella enterica, Pseudomonas aureuginosa, Legionella pneumophila...) **fungi and molds** (Aspergillus niger, Aspergillus brasiliensis, Candida albicans, Chaetomium globosum, Paecilomyces variotii, Penicillium pinophilum, Trichoderma virens...) **and viruses** (Human Coronavirus, Feline Coronavirus). The paints and coatings of Fakolith's sanitary range contribute to comply positively with CE 852/2004, are manufactured under HACCP and Good Manufacturing Practices (GMP) according to CE 2023/2006, improving hygiene and food and sanitary safety of surfaces and environments. FAKOLITH Sanitary Registration: RGSEAA ES-39.005259/T and ROESP E-0043-E.

PROPERTIES: Excellent adhesion on multiple surfaces, resistant to weathering, carbonation and alkalinity of the base). Drying starts from 3°C - 60% humidity. Tests CE marked (Tecnalia) UNE-DIN EN ISO 1504-2:2005 after 28 days cured at 23±2°C 50±5% relative humidity and average thickness of 285 µm.

- High resistance to attack by commonly used chemical solutions Class I-II.
- Permeability to CO₂ Class III Sd >50 m
- Permeability to water vapor Class I Sd <5m
- Liquid water permeability w<0,1 Kg/m²-h 0,5
- Tensile strength for Rigid and Flexible systems without traffic loads =1.30 N/mm²

According to DIN EN 13300:2002 and DIN EN 1062-1 it is resistant to wet rubbing Class 1 (<5 µm), covering Class 1

(>250 ml/m²) and Class 2 (250-125 ml/m²), water vapor transpiration Class V2 (SD= 0.66 [m]), and water permeability Class W3 (W24=0.0062). Estimated Euroclass B-s1, d0.

Paint treated with effectiveness tests against microorganisms (fungi, bacteria, yeasts) according to ISO 22196 and ISO 846 of Eurofins, CNTA and Fraunhofer, also tested as suitable for cleanrooms. Paint resistant to most disinfectants and cleaners according to Test DIN EN ISO 4628-2: 2004-01 carried out by TÜV SÜD Germany and/or Fakolith R&D&I. (In case of doubt, please consult our Technical Department). Paint/varnish tested with GC-MS-MS technique to determine the polyhaloanisoles and polyhalophenols profile in dry film, <0.50 ng/l. without risk of anisoles or precursors, suitable for use in wine cellars (DOLMAR).

HOW TO APPLY: Compatible with most absorbent mineral surfaces, concrete, properly primed metals, lacquered panels and other dispersion paints and/or previous primers well attached and resistant to cut-cross test Class 0-1 UNE-DIN EN ISO 2409:2007. For the proper application of a product, the state and preparation of the base must be considered. The base must be clean, consolidated and with adequate levels of humidity, for which we have a wide range of cleaners, disinfectants, deoxidizers, primers, water repellents, consolidators, insulating agents, mortars, putties. In case of doubt, consult our technical advice service.

Finish with 2 or 3 coats of Disperlith Elastic hygienic paint, applied by roller brush or airless.

CONSUMPTION – PERFORMANCE: Depending on the state and type of base, we recommend between 200-400ml/m², applied in 2 to 3 coats, with a total yield between 2.5 and 5 m²/l.

More information in its technical and safety data sheet, and in the web section [solutions and application guides](#).

3.- OPTION C - DISPAINT Hygienic Forte

PROPERTIES: It is a multi-purpose hygienic sanitary enamel with matte-satin finish, thin film with exceptional adhesion to multiple types of surfaces, especially suitable for surfaces that can be attacked by mold and mildew. Formulated with modified acrylic copolymers in aqueous dispersion, low VOC, free of ammonia, APEO, formaldehyde, phthalates, BPA, heavy metals, polyhaloanisoles and polyhalophenols. Exceptional adhesion on previously enameled surfaces, mineral bases, wood, plasterboard, sandwich panels, plastics and 3D prints, primed metals, and also directly on stainless alloys. It presents neither tacking nor blocking after curing, is resistant to wet scrub class 1, low Voc, and low odor and also has CE marking tests. It is fast drying and dries at low temperatures (>3°C -60% humidity). It is a multipurpose aqueous enamel highly resistant to attack of molds and microorganisms, easy application, renovation and maintenance. With Declaration of Conformity, Performance and CE Marking.

BIOFILMSTOP SANITARY TECHNOLOGY (Article treated BPR Art.3): DISPAINT Hygienic Forte is a treated paint (BPR Art 3 and 58) with broad spectrum BioFilmStop antimicrobial Technology. With **effectiveness ≥99.9%** and tested in various official R&D&I projects and external reference laboratories, under various regulations ASTM D2574-06, ISO 846, ISO 22196, ISO 15457:201, ISO 21702, etc., **against bacteria and biofilm** (Staphylococcus aureus MRSA, Listeria monocytogenes, Salmonella enteritidis, Salmonella enterica, Pseudomonas aureuginosa, Legionella pneumophila...) **fungi and molds** (Aspergillus niger, Aspergillus brasiliensis, Candida albicans, Chaetomium globosum, Paecilomyces variotii, Penicillium pinophilum, Trichoderma virens...) **and viruses** (Human Coronavirus, Feline Coronavirus). The paints and coatings of Fakolith's sanitary range contribute to comply positively with CE 852/2004, are manufactured under HACCP and Good Manufacturing Practices (GMP) according to CE 2023/2006, improving hygiene and food and sanitary safety of surfaces and environments. FAKOLITH Sanitary Registration: RGSEAA ES-39.005259/T and ROESP E-0043-E.

MAIN USE: As a finish especially in the renovation and painting of surfaces up to medium physicochemical stress, susceptible to attack by mold and microorganisms, especially in the food industry, and also in the health sector, pharmaceutical and cosmetic industry, industry and civil works in general. For interior and exterior walls, baseboards and ceilings, various objects, 3D printing, marking and signage, plastic surfaces in general, wood surfaces, primed metals, aluminum alloys, galvanized, sandwich panel and other compatible surfaces. Mainly used in food and auxiliary industry, health sectors, hospitals, clinics, in industry, civil works and public and private buildings in general.

PROPERTIES: Dispaint Hygienic Forte is an enamel with exceptional hardness and adhesion on multiple surfaces. Resistant to weathering, carbonation and alkalinity of the base. Good average resistance to most of the disinfectants and cleaners in use solution, according to DIN EN ISO 4628-2: 2004-01 (Higher resistance to acid solutions than to basic ones). **Tests CE marked** (Tecnalia) UNE-DIN EN ISO 1504-2:2005 after 7 days of curing applying 2 coats of 162.5 gr:

- Abrasion resistance. Weight loss= 40 mg.
- Permeability to CO₂ Class III Sd >50 m (223)
- Permeability to water vapor Class I Sd <5 m (2.07)
- Liquid water permeability $w < 0.1 \text{ Kg/m}^2 \cdot \text{h}$ 0.5 (0.01) Class III
- Tensile strength for rigid systems with traffic loads = 3.55 N/mm².

WAY OF APPLICATION: Applicable by brush, roller, Airless or Air-Mix.

SERIAL COLORS: White. Consult availability, price and minimum quantity for other colors of the FoodGrade chart or other RAL colors).

AVERAGE YIELD: DISPAINT Hygienic Forte has an approximate average yield of 4-8 m²/l. in 2-3 coats. Depending on the desired finish, the texture and absorption of the base coat can vary considerably.

For a correct application follow the indications of the technical data sheets, application guides and safety data sheets. In case of doubt consult our technical service.

3.- OPTION D - DISPERLITH POX

PROPERTIES: DISPERLITH Pox is a two-component, water-based epoxy paint with CE Marking, formulated using special epoxy resins, low emissions and low odour (Low Voc), free of APEO, ammonium, formaldehyde and heavy metals, waterproof highly resistant to abrasion, dampness/humidity and the consequences thereof, for interior use. DISPERLITH Pox forms a well-balanced film of paint, highly resistant to stains, easy to apply, quick drying, low odour and providing an excellent finish, in line with the DIN EN 13300 Standard, wet scrub resistance Class1 and coverage Class 1. Excellent adhesion on all kind of surfaces. Highly resistant to surface carbonation and alkalinity. It could be applied at temperatures as low as 2-3°C and up to a maximum relative humidity of 75%. Paint resistant to the most disinfectant cleaners according to Tests DIN EN ISO 4628-2: 2004-01 by TÜV SÜD Germany and/or Fakolith R&D+i (For more security, before use, ask your case to our Tech. Department). Available in white. Other colours consult availability and minimum quantity to order.

BIOFILMSTOP SANITARY TECHNOLOGY (Treated Article BPR Art.3): DISPERLITH Pox is an intelligent sanitary paint, treated with BioFilmStop Inhibition, highly resistant to biofilm bacteria and mould, DIN-UNE EN 15457:2008 (Aspergillus, Cladosporium, Penicillium, Algae...), as well as bacteria, ISO 22196:2011 (Escherichia coli, Listeria monocytogenes, Bacillus subtilis, Pseudomonas aeruginosa, Staphylococcus aureus, Salmonella enteritidis, Legionella pneumophila...). The paints of the DISPERLITH range positively contribute to compliance with (EC) 852/2004, are manufactured subject to HACCP and GMP (EC) 2023/2006, also notably improving HACCP, food safety and asepsis for the user company. With Statement of Compliance – Health Register FAKOLITH RGSEAA ES-39.005259/T and ROESP E-0043-E.

RECOMMENDED USE: DISPERLITH Pox is mainly recommended for use on walls, ceilings and skirting boards, and is compatible with most surfaces, duly primed should such be required, lacquer-finish sandwich panels, and to cover well-adhered previous coats of dispersion and/or priming paints. Resistant to cross-cut test Class 0-1 UNE-DIN EN ISO 2409:2007, the excellent qualities of this paint ensure that it functions as a hybrid, between a water-based dispersion and an epoxy paint, with improved physicochemical resistance, particularly in severe industrial, climate or sanitary conditions, for the food industry, health sector, and pharmaceutical or cosmetics industry in general, construction and civil engineering.

HOW TO APPLY: Carefully protect all surfaces that are not to be treated from splashing. Apply DISPERLITH Pox using brushes, rollers or airless spray guns. The surface must be clean, free of hygroscopic salts, microorganisms, etc. and, should such be required, duly primed. Following suitable preparation of the surface, slowly pour

component A into component B (never the other way round), mix together gently using an electric mixer, for at least 2 minutes or until the components have blended completely together, and then leave to rest for 1 minute before starting to apply. When mixing always use complete batches of component A and component B, to avoid errors in the mixing ratio. Drying times and the length of time you will have to wait between coats will depend on the actual thickness of each coat, temperature, level of relative humidity and ventilation. However, generally speaking you will not have to wait for more than 1-4 hours before applying a second coat. Clean utensils immediately after use with water. For more information consult the specifications sheet and/or application guidelines.

AVERAGE YIELD: DISPERLITH Pox has a yield of approx. 2-5 m²/l, applied in 2 -4 hands although this can vary considerably, depending on how it is applied and the texture and absorption of the surface.

IMPORTANT NOTE:

This application guide is a general recommendation. On particular cases there may be additional recommendations or variations. Consult your doubts and recommended plan of subsequent maintenance with our Technical Department through the contact form of this web. If you want a Personalized Technical Prescription, [contact us](#) and send us the completed Check List of the Food-Health Industry available in the section "Application Guides".

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.