

Type of material

Tested chemical- and cleaning-resistant dispersion-based cleanroom paint. Suitable as ceiling and wall coating for areas where the highest demands are made on hygiene. DISPERLITH FOODGRADE is particularly recommended as a protective coating in industrially used damp rooms, such as production, cooling and storage rooms in the food industry.

The emulsion paint is tested and certified according to VO (EC) 1935/2004, VO (EU) 10/2011 for coating substrates that are in direct contact with food.

Properties



Recommended by the Federal Association of Food Inspectors Germany e.V.

- Certified in accordance with Regulation (EC) 1935/2004 and Regulation (EU) 10/2011 for direct contact with foods
- Surface protection against virus and bacteria infestation with tested GREEN-BIO.FILM.STOP technology (ISO 21702:2019-05, ISO 22196:2011-08)
- Tested cleanroom paint "Cleanroom Suitable Materials (Fraunhofer Institute 4/2018)
- Recommended by the Federal Association of Food Inspectors Germany e.V.
- Wet abrasion resistance: Class 1 (< 5 µm)
- Opacity class 1 (< 5 m²/L / C1)
- SD-value = 1.57 (V₃)
- W-value = 0.03 kg/m²-h0.5 (W₃)
- Can be used at substrate temperatures up to + 4°C
- High level of chemical resistance
- Excellent adhesion behavior
- Fast drying
- Suitable for the renovation of metal panels/sandwich panels

GREEN-BIO.FILM.STOP Technology

The selected combination of active substances creates a colored film with high qualitative and quantitative resistance to viruses and bacteria. The tests were performed in application of ISO 21702:2019-05 (Measurement of antiviral activity on plastics - Feline coronavirus, Strain Munich) and ISO 22196:2011-08 (Measurement of antibacterial activity on plastics - Escherichia coli, Listeria monocytogenes, Bacillus subtilis, Pseudomonas aeruginosa). BIO.FILM.STOP technology has a preventive effect in the reversible phase. The formation of a biofilm on the surface of the coating is demonstrably inhibited by BioFilmStop prophylaxis.

The waterborne odorless 1-component coating is characterized by good processing properties and extreme adhesion to a wide variety of substrates. It is resistant to a wide range of acidic and alkaline cleaning agents used in the food industry. The satin surface of the coating is easy to clean and disinfect.

DISPERLITH FOODGRADE is fast drying and has a low film forming temperature. Drying is guaranteed even at temperatures as low as +4°C (max. 70% relative humidity).

DISPERLITH FOODGRADE complies with REGULATION (EC) No 1935/2004 on materials and articles intended to come into contact with food, Regulation (EC) No 2023/2006 on good manufacturing practice for materials and articles intended to

come into contact with food, Regulation (EU) 10/2011 on plastic materials and articles intended to come into contact with food and Regulation (EU) No 1282/2011, Regulation (EU) 752/2011 of 28.04.2017 amending and correcting Regulation (EU) No 10/2011.

Please note:

In rooms with a high microbial load, we recommend the products DISPERLITH ELASTIC or DISPERLITH INDUSTRY to protect against mold and bacteria infestation. These are coatings with the BLUE-BIO.FILM.STOP technology. The BLUE-BIO.FILM.STOP technology additionally protects the paint film against mold growth. These products with BLUE-BIO.FILM.STOP technology are suitable and recommended for use in the food industry, but are not certified for direct contact with food. Products with GREEN-BIO.FILM.STOP technology are certified for direct contact with food according to VO (EU) 10/2011.

Areas of application

DISPERLITH FOODGRADE is particularly suitable for applications in

- the food industry
- in health care
- in the pharmaceutical industry
- in the cosmetics industry, etc.

for coating/renovation of

- Cleanrooms
- Cold storage and production rooms
- Metal panels / sandwich panels
- Ceilings, walls and plinths
- Ceiling structures, where there is a risk of dripping water onto food stored below.

DISPERLITH FOODGRADE is not recommended for rooms where there is a risk of mold growth due to high humidity (better: FK 45 FOODGRADE or DISPERLITH ELASTIC).

Current restrictions on the coating of food tanks: The migration tests carried out confirm the suitability of DISPERLITH FOODGRADE for direct contact with food. The physical properties of the coating as a surface protection for ceilings and walls have been successfully tested and confirmed in long-term studies in the laboratory and on site. DISPERLITH FOODGRADE as an emulsion paint is not suitable for use as a basin and tank coating. Suitable 2-component coatings are available for this purpose in the form of FK 45 FOODGRADE, FK 100 FOODGRADE and FAKOPUR FOODGRADE. If you have any questions, please contact our application technology department.

Legal provisions and certification

DISPERLITH FOODGRADE complies with all current European regulations for materials that come into contact with foodstuffs in accordance with VO (EC) 852/2004.

Further regulations for the certification of DISPERLITH FOODGRADE: Regulation (EC) 1935/2004, Regulation (EC) 2023/2006, Commission Regulation (EU) 10/2011 and its subsequent amendments (EC) No. 1282/2011 regarding plastic materials and articles in contact with food. With the implementation of the European regulations, criteria for the European market are standardized. Among other things, the standards define various simulants as well as global and specific migration tests for each food group. The previous tests for DISPERLITH FOODGRADE were carried out with simulants A, B, C (OM2-40°C) and D2. All details of the tests performed are included in the manufacturer's declaration of conformity.

The tests carried out by FAKOLITH in the independent institutes APPLUS, TECNALIA and the National Institute of Food Technology (CNTA) confirm that the FAKOLITH FK 45 coating meets the requirements for global and specific

migration limits in all test procedures.

Categories / criteria of the test simulators	
Contact food	Simulacrum
Aqueous food only	Simulant A
Acidic food only	Simulant B
Alcoholic food only	Simulant C
Only fatty foods	Simulant D
All aqueous and acidic foods	Simulant B
All alcoholic and aqueous food	Simulant C
All alcoholic and acidic foods	Simulants C + B
All fatty and watery foods	Simulants D + A
All fatty and acidic foods	Simulants D + B

HACCP



FAKOLITH Chemical Systems is an associate member of CNTA and a participating partner in official R&D projects related to technically advanced coatings for the food industry and the healthcare sector.

FAKOLITH Chemical Systems is registered both in the Health Registry of the Food Industry of the Spanish Province of Catalonia (Registro Sanitario de Industrias y Productos Alimenticios de Cataluña, RSIPAC) under the number 39.05377/CAT and in the Spanish Health Registry of the Food Industry (Registro General Sanitario de Empresas Alimentarias y Alimentos, RGSEAA) under the number ES-39.005259/T. FAKOLITH Chemical Systems guarantees the production of products of impeccable quality as part of the implementation of the company's internal HACCP concept. According to VO (EU) 1935/2004/EG the traceability of the production is guaranteed.

FAKOLITH Farben GmbH and FAKOLITH Chemical Systems are certified according to the quality management system DIN EN ISO 9001:2008 since 2006. Cert. no. 01100071679/01.

Substrates

Substrate preparation in accordance with the German Construction Contract Guidelines (VOB). Substrates must be dry and free from contamination and separating substances. Observe German Construction Contract Guidelines (VOB), Section C, DIN 18363, part 3. The Substrate pre-treatment depends on the substrate:

- **Concrete:**
If necessary, remove release agent residues with FAKOLITH FK 11 Cleaner. Remove sanding substances and pretreat substrate with FAKOLITH FK 16 Deep Penetrating Primer.
- **Mineral plasters:**
Prime with FAKOLITH FK 16 Deep Primer or DISPERLITH PRIMER.
- **Mold and bacteria infested substrates:**
Clean with FAKOLITH FK 12 diluted 1:4 with water. Then apply FAKOLITH FK 14 aqueous antifungal solution generously. After cleaning, check substrate for strength and, if necessary, apply FAKOLITH FK 16 deep primer.

As an alternative to FAKOLITH FK 14 Antifungal and FAKOLITH FK 16 Deep Primer, DISPERLITH PRIMER can be used. Processing of DISPERLITH PRIMER from +4°C.

- **Yeast and bacteria** infested substrates:

Clean with FAKOLITH FK 39. Then apply FAKOLITH FK 14 aqueous antifungal solution. After cleaning, check substrate for strength and, if necessary, apply FAKOLITH FK 16 deep primer.

As an alternative to FAKOLITH FK 14 and FAKOLITH FK 16, DISPERLITH PRIMER can be used. Processing of DISPERLITH PRIMER from +4°C.

- Substrates with **soiling due to grease, oil, soot**:

Clean with FAKOLITH FK 11 diluted 1:20 with water. After cleaning, check substrate for strength and, if necessary, apply FAKOLITH FK 16 Deep Penetrating Primer.

- **Coatings that are not load-bearing**:

Remove and clean substrate. Apply FAKOLITH FK 16 Deep Primer or DISPERLITH PRIMER.

- **Load-bearing emulsion paints**:

Check the strength of the old coating(s). Clean substrate. If necessary, solidify chalky surfaces with FAKOLITH FK 16 Deep primer or DISPERLITH PRIMER.

- **Iron, steel, stainless steel, aluminum, copper, powder coated metals**:

Prepare surface and remove residues of oil, grease, salt or dirt. Recommendation: Apply FAKOLITH FK 11 Cleaner diluted 1:20 with water and clean off immediately. Wipe down with solvent to prevent corrosion.

Information on surface preparation methods can be found in DIN EN ISO 12944-4.

Remove rust from oxidized surfaces. Coat with FAKOLITH FK 9, allow to react for 10 minutes and wash off again. Dry substrate for 1 hour and wipe with solvent (e.g. Universal Thinner).

Apply FAKOLITH FK 44-POX rust protection primer and adhesion promoter in 1-2 working steps. FAKOLITH FK 44-Pox is odorless and can be applied at temperatures from +4° C.

The adhesion of FK 44-POX to powder-coated substrates must be confirmed by means of a tensile adhesion test.

Please read the technical information and safety data sheets before application. Observe substrate moisture, check the strength of the old coatings by means of cross-cutting and clarify the spatial/temporal conditions on the object.

Carrying out renovation and maintenance work in industrially used spaces requires sound planning. We recommend inquiring about the individual requirements for the coating and clarifying the conditions on site before starting the work:

- Which cleaning agents are used in which concentration, at which temperature and how often during the daily production process?
- What are the temperatures/humidity during the execution of the renovation works?

	We recommend detailed coordination of the work, taking into account the processing conditions and the expected drying times. When will production start up again? What moisture load is to be expected and when will the first cleaning of the renovated section take place?
Processing	Application by brush, roller or airless spraying. We recommend the following settings for spray processing: Nozzle = 5/17. Spray pressure 170bar. Application: Undiluted.
Binder	Vinyl copolymer, pure acrylate
VOC content	Class: a (Wb). Maximum 30g/l VOC (Directive 2004/42/EC). Maximum 10 g/l (EcoLabel). The product contains max. 30g/L VOC.
Pigmentation	Titanium dioxide rutile (not for the transparent version).
Density	Density (23°C ± 0.5) DFG Color: 1.30 ± 0.02 g/cm ³ .
Flash point	Not applicable.
Viscosity	Viscosity (ASTM 3, 250 rpm, a 25°C ± 0.5) DFG Color: 1750 mPa-s. ± 250 Viscosity (ASTM 3, 250 rpm, a 25°C ± 0.5) DFG Varnish: 190 mPa-s. ± 250
Solid materials	57% ± 2%
Gloss level	Silk matt (DIN 13300)
P.V.C.	31% (pigment volume concentration)
Colour shade	Standard color shades: white, gray (approx. RAL 7004), transparent. Other shades in FOODGRADE quality: From an order quantity of 5 liters: Light ivory (approx. RAL 1015), light blue (approx. RAL 5012), oxide red (approx. RAL 3009). From an order quantity of 100 liters: Black (approx. RAL 9017), Dark green (approx. RAL 6002), Ivory (approx. RAL 1014), Ochre brown (approx. RAL 8001), Signal yellow (approx. RAL 1003), Telegrey (approx. RAL 7047). Please note that longer delivery times may have to be expected for these color shades. For the tinting of DISPERLITH FOODGRADE in FOODGRADE quality, we use only powder pigments approved for food contact.
Tinting paste	Tinting only possible ex works.
Consumption	Depending on the condition and type of substrate >250ml/m ² , application in 2 applications.

DISPERLITH FOODGRADE color (7 days- 23°C - 50% rel. humidity)				
Application thickness	Coating thickness - Consumption			Theoretical yield
	dry	wet	wet*(gr./m ²)	
low	100 µm	200 µm ± 2%	200 ml/m ²	5 m ² /l
High	200 µm	400 µm ± 2%	400 ml/m ²	2,5 m ² /l

Dilution

DISPERLITH FOODGRADE is an aqueous product supplied ready for use. The first coat can be diluted with drinking water up to max. 5%.

Drying time

Drying time between coats 2h, fully dry after approx. 24h Fully loadable by industrial cleaning after approx. 48h (20°C/ 60% relative humidity). Low temperatures and high humidity extend the drying time. We recommend testing the strength of the coating before full loading.

Application temperature

From +4° C. For both substrate and ambient temperature (TG= 0°C - MMFT 0°C). Maximum humidity during application 70%. Pay attention to condensation, especially on metallic substrates.

Adhesion to the substrate

Material	Measured adhesive tensile strength DISPERLITH FOODGRADE 100 µm dry film thickness		
	Tensile force (kg/cm ²) (UNE-EN ISO 4624:2002)	Demolition (UNE- EN ISO 4624:2002)	Cross cut (UNE-EN ISO 2409:2007)
Concrete	125 ± 25	100% RCB*	Not applicable
Wood	140 ± 10	100% RCB*	Not applicable
Sandwich panel	54 ± 5	RCB*	Class 0
Fiberglass	42 ± 5	RCB*	Class 1


*RCB = base cohesive failure or RA = loss of adhesion.

In all cases where cohesive failure of the base occurs, the adhesion values refer to the base and may vary.

The values given in the table were measured in our laboratory at 25 ± 2 °C and 50 ± 5% RH after a curing time of 7 days. They are average values and serve as a guide. The suitability of the product must be tested and confirmed by laying samples on the object.

Compatibility

Do not mix with other colors.

Storage	12 months in a sealed container in a cool environment. Do not store at temperatures below 5°C or above 25°C. After opening the package, consume contents immediately.
Container	5- and 12.5-liter buckets.
Occupational safety	Exclusive product for professional use. For proper handling, read the safety data sheet, use your personal protective equipment and take the necessary measures.
Disposal	For disposal, comply with local regulations. Dispose of liquid component in a suitable incinerator. The product can be disposed of with household waste after curing.
Note	A successful renovation requires professional planning and comprehensive documentation. We can offer you the "FAKOLITH Checklists" and the property-related "Renovation Concepts" for this purpose. These documents are available on the internet at www.fakolith.de . Our consultants would be very happy to offer you a personal consultation.
Safety Datasheet:	

LEGAL NOTICE:

The companies FAKOLITH Farben GmbH and FAKOLITH Chemical Systems S.L.U. are certified according to the quality management system DIN EN ISO 9001:2015 by TÜV Rheinland Cert, Cert. No. 01100071679/01.



This technical information and recommendation regarding the processing and use of the product is based on our current knowledge and experience using standard situations and the use of the product within the shelf life. This information does not release the buyer and/or user from the obligation to determine whether our offer, recommendation or the technical quality and characteristics of our products meet their specific requirements. FAKOLITH reserves the right to update the characteristics and specifications of the products. Updated editions will be published at www.fakolith.de. An updated edition of this document invalidates the previous version (see date of creation).

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