



FAKOLITH[®]
chemical systems

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a Fakolith Group Company

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Painting of metal tanks for food, beverages and drinking water, with certified epoxy foodgrade paint for direct and indirect contact with food and drinks.

Description of the problem

Painting and/or repairing metal tanks, so that they are suitable for contact with food, beverages, drinking water used in food processing, in the agricultural industry, or water for human and animal consumption, is a very serious matter that requires suitable products that meet the requirements and tests that the EU Regulation 10/2011 and or FDA CFR21 175.300 specifies, both for the producer and for each marketed product suitable for contact with food. In any case, the manufacturer must provide the customer the detailed Declaration of Conformity (Compliance Declaration), Performance Declaration and CE marking test, of each product.



Fakolith, with Sanitary Registration ES-39.005259/T for the manufacture of materials in contact with food, is periodically inspected by the health authority, and has FoodGrade paints, varnishes and coatings with all the documentation and tests that guarantee their suitability for direct and indirect contact, with solutions tested for all food groups, liquids or solids, and for prolonged storage. In addition, when we talk about tanks, we must not forget that we are generally talking about confined spaces, so the application company, apart from adequately preparing the base, must follow specific PPE procedures and mandatory safety measures. Within our high performance range, the FK-100 FoodGrade Heavy-duty epoxy coating (100% solids), EU and FDA certified, stands out as the most current and versatile standard **FK-100 FoodGrade**. All Fakolith FoodGrade food contact coatings are treated with BioFilmStop Green antimicrobial food technology, which helps to inhibit the nesting of bacteria, biofilm and viruses that cause foodborne illnesses, thus increasing food and sanitary safety. We recommend consulting our "[High Solids Epoxy Application Guide](#)" before starting work with these paints. Regardless of major repairs, the painting or repainting of a mineral food tank, as a minimum and in general, would take into account the following basic options.

Summary of the most common basic solution and procedure

The ideal and only recommended pre-treatment to ensure maximum adhesion to the iron-steel base (ask other metals), is the complete removal of existing paint layers by sandblasting SA 2.5 Rz>50, so we get to the base metal clean of rust and with adequate roughness to ensure the best possible adhesion of the primer and / or paint.

2. SURFACE PAINTING:

Final painting between 2 to 4 coats with Fakolith FoodGrade food grade epoxy or polyurethane paint, whichever is more convenient in each case. Depending on the application, environmental and environmental conditions, we recommend diluting the epoxy range up to 10% with **FK-45 OEM Solvent FG**, a food grade solvent, to provide better wetting, leveling and pot-life extension if necessary. See application details in its Technical Data Sheet.

· **Option A - FAKOLITH FK-100 FOODGRADE:** When the highest physical-chemical resistance in its category is

required. Recommended in general and especially when the food or beverage to be contained is liquid and is in metal tanks. It has the most extensive EU and FDA certification in the market. In addition, FK-100 FoodGrade as a partially bio-based epoxy paint has an exemption for not being considered dangerous goods for transport by road, sea or air. (Alternatively can still be used [FAKOLITH FK-45 FOODGRADE](#) or [FAKOLITH FK-45 FOODGRADE HYGIENIC.](#))

Application process

1.- FK-100 FoodGrade

PRODUCT SUMMARY: FK-100 FoodGrade is a 2-component heavy-duty food contact epoxy coating, 100% solids and partially bio-based, , and with double certification for direct contact with food, the European EU 10/2011 and the American FDA 21 CFR 175.300. High performance and high thickness coating, low Voc, low odor bio-based, gloss finish, with CE marking tests, and tested excellent anticorrosive and physicochemical resistance in its category. Particularly suitable for the protection, renovation, and painting of surfaces in direct, occasional or indirect contact with food, beverages, water for food processing and drinking water.

FIELDS OF USE: Following the technical indications for each system, FK-100 FoodGrade can be applied inside silos, tanks and pipes, walls, ceilings, skirting boards, floors, metal structures, machinery and equipment, large aquariums and fish farms, cold and freezing rooms, food warehouses, panels, food transport, etc., always indoors. Especially in the food industry and healthcare sectors, hospitals and clinics, and also in industry, civil works and public and private buildings in general. Compatible with most mineral surfaces, concrete, sandblasted metals SA 2,5 Rz>50, metals properly primed, lacquered panels and on other paints and / or compatible primers well bonded and other surfaces resistant to cut-cross test Class 0-1 UNE-DIN EN ISO 2409:2007 and traction EN ISO 4624:2016 Rigid Systems: $\geq 1,0$ (0,7) b N/mm². (Without traffic loads) and: $\geq 2,0$ (1,5) b N/mm² (With traffic loads).

Product treated (BPR Art 3 and 58) with BioFilmStop FG antimicrobial technology, specific FoodGrade version, highly effectiveness tested against bacteria and other pathogenic microorganisms such as coronavirus, and always according to EU 10/2011 and FDA 21 CFR 175.300 regulations. ISO 22196 and ISO 21702 effectiveness test (Escherichia coli, Listeria monocytogenes, Bacillus subtilis, Pseudomonas aureginosa, Staphylococcus aureus, Salmonella enteritidis, Legionella pneumophila, Coronavirus Feline). The paints and coatings of the Fakolith FoodGrade range contribute to the positive compliance with CE 852/2004, are manufactured under HACCP and Good Manufacturing Practices (GMP) according to CE 2023/2006 and/or FDA 21 CFR 174.5, improving the hygiene, food and health safety of surfaces and environments.

STANDARD COLORS: Pearl White RAL 1013, Oxide Red RAL 3009 and Grey RAL 7004, Blue RAL 5012, Green RAL 6002 and Transparent Amber Varnish. (Please check availability, price and minimum required quantity for other colors from our FoodGrade chart or other RAL colors, except white which is not available in this product).

APPLICABLE with brush, roller, Airless or AirMix preferably heated.

With Declaration of Compliance, Performance and CE marking.

PAINT AVERAGE YIELD: according to recommended coat thickness, depending on use of FK-100 FoodGrade

- Dry thickness = Wet thickness: 200 μm - consumption is 265 gr/m² - a yield of 3,77 m²/kg.
- Dry thickness = Wet thickness: 300 μm - consumption is 395 gr/m² - a yield of 2,53 m²/kg.
- Dry thickness = Wet thickness: 350 μm - consumption is 463 gr/m² - a yield of 2,16 m²/kg.
- Dry thickness = Wet thickness: 400 μm - consumption is 530 gr/m² - a yield of 1,89 m²/kg.
- Dry thickness = Wet thickness: 500 μm - consumption is 660 gr/m² - a yield of 1,51 m²/kg.
- Dry thickness = Wet thickness: 700 μm - consumption is 925 gr/m² - a yield of 1,08 m²/kg.

VARNISH AVERAGE YIELD:

- Dry thickness = Wet thickness: 50 μm - consumption is 51,5 gr/m² - a yield of 19,4 m²/kg.
- Dry thickness = Wet thickness: 75 μm - consumption is 77,3 gr/m² - a yield of 12,9 m²/kg.

- Dry thickness = Wet thickness: 100 µm - consumption is 103gr/m² - a yield of 9,7 m²/kg.

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

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.