

dirección:
polígono industrial Baix-Ebre
parcela, 61 / D
c.p.:
teléfono / fax:
e-mail: fcs-spain@fakolith.com

a Fakolith Group Company

vww /. fakolith.com

## Food contact paint for pipe lining

# Description of the problem

The interior renovation of pipes for drinking water, water for food, livestock or agricultural processes, is carried out by specialized companies both in industry and in homes. These companies have the necessary equipment for the previous sanitation of the pipes, the elimination of rust, corrosion, biofilm, etc., leaving the metal surface clean and with the appropriate roughness to be painted. Subsequently, with special paint application and drying equipment, they proceed to coat the interior surface of the pipes with our paints suitable for contact



with food, beverages and drinking water. Special equipment is also used to accelerate curing and shorten commissioning. These specialized companies make it possible to repair and condition existing pipelines without the need for construction work.

# Summary of the most common basic solution and procedure

#### **SURFACE PAINTING:**

Only with specialized companies:

FAKOLITH FK-100 FOODGRADE: Currently the most avant-garde paint used in this sector is the Bio-Hybrid food epoxy, FK-100 FoodGrade, the only one worldwide certified under the European Regulation EU 10/2011 and the American FDA 21 CFR 175.300. In addition, FK-100 FoodGrade as a bio-hybrid epoxy paint is exempted from hazardous goods transport by road, sea or air.

# **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,

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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 subtillis, Pseudomonas aureginosa, Staphylococcus aureus, Salmonella enteritidis, Legionella pnemophila, 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  $\mu$ m consumption is 265 gr/m<sup>2</sup> a yield of 3,77 m<sup>2</sup>/kg.
- Dry thickness = Wet thickness: 300  $\mu$ m consumption is 395 gr/m<sup>2</sup> a yield of 2,53 m<sup>2</sup>/kg.
- Dry thickness = Wet thickness: 350  $\mu$ m consumption is 463 gr/m<sup>2</sup> a yield of 2,16 m<sup>2</sup>/kg.
- Dry thickness = Wet thickness:  $400 \, \mu \text{m}$  consumption is  $530 \, \text{gr/m}^2$  a yield of 1,89 m<sup>2</sup>/kg.
- Dry thickness = Wet thickness:  $500 \, \mu \text{m}$  consumption is  $660 \, \text{gr/m}^2$  a yield of 1,51 m<sup>2</sup>/kg.
- Dry thickness = Wet thickness: 700  $\mu$ m consumption is 925 gr/m<sup>2</sup> a yield of 1,08 m<sup>2</sup>/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  $\mu$ m consumption is 77,3 gr/m<sup>2</sup> a yield of 12,9 m<sup>2</sup>/kg.
- Dry thickness = Wet thickness:  $100 \, \mu \text{m}$  consumption is  $103 \, \text{gr/m}^2$  a yield of 9,7 m<sup>2</sup>/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.

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