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chemical systems

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Overprint varnish certified for direct food contact on rigid or flexible food packaging made of: cardboard, MDF, PE (polyethylene), PP (polypropylene) and PET (polyethylene terephthalate).

Description of the problem

Whether for use in rigid or flexible printed food packaging, Fakolith was the first company to develop a range of overprint and protective coatings duly certified for direct and indirect contact with food, both for single and repeated use packaging, in accordance with EU Regulation 10/2011 and also certified according FDA 21 CFR 175.300. We have referencies for recommended use in rigid or flexible printed food packaging made of: cardboard, MDF, PE (polyethylene), PP (polypropylene) and PET (polyethylene terephthalate). They can be applied both inside the package (direct contact) and outside (indirect). It is a milestone to have achieved a range of varnishes for direct contact with food, with solutions for all food groups of the EU 10/2011, and compliance even at first migration.



This range of Fakolith FoodGrade coatings, with a satin-gloss finish, is water-based, 1-component, non-hazardous for use or transport, Bisphenol A-free, fast air-drying or forced drying, transfer and apply perfectly with anilox rollers between other methods, obtaining excellent adhesion on multiple surfaces. In addition, Fakolith FoodGrade coatings also act as a waterproofing and insulating barrier against water, grease, oxygen, etc. The innovative versions of the official R&D&I project "[Bio-Hybrid Food Contact](#)" also contribute positively to the reduction of the carbon footprint by incorporating a large proportion of bio-based raw materials. All Fakolith FoodGrade coatings are treated with food contact antimicrobial technology BioFilmStop Green, which helps to inhibit the nesting of bacteria, biofilm and viruses that cause foodborne toxiinfections, thus increasing food and health safety.

Summary of the most common basic solution and procedure

- **Option A - VARNIPACK FOODGRADE:** It is an innovative water-based varnish and overprint Varnish, fast drying and thin layer, suitable for direct and indirect contact with food, which is presented as the most avant-garde option, both for the packaging industry of MDF, cardboard and similar, as well as in multiple other wood surfaces or derivatives. It has double certification EU 10/2011 and FDA 21 CFR 175.300, which broadens its field of use.
- **Opción B - VARNIFLEX FOODGRADE (SOON AVAILABLE):** It is an innovative water-based varnish and overprint varnish, fast drying and thin film, suitable for direct and indirect contact with food, which is presented as the most avant-garde option, especially for flexible printed packaging, especially PE (polyethylene), PP (polypropylene) and PET (polyethylene terephthalate). It is partially bio-based and has double certification EU 10/2011 and FDA 21 CFR 175.300, which broadens its field of use.

Application process

1.- OPTION A - VARNIPACK FoodGrade

FEATURES: Varnipack FoodGrade is a colourless, thin-layer, air-drying, 1-component aqueous dispersion varnish, certified and suitable for direct and indirect contact with food according to European Regulation EU 10/2011 and American Regulation FDA 21 CFR 175.300 and its subsequent amendments. Food contact varnish with glossy-satin finish, formulated with modified acrylic copolymers, free of Bisphenol A (BPA free), APEO, formaldehyde, phthalates, heavy metals... Varnipack FoodGrade is fast drying, high resistance to humidity, excellent transfer, ideal balance between resistance and flexibility, no tacking or blocking after curing, wet scrub resistance class 1, low Voc, very low odour, barrier function, and excellent finish when is applied in thin layers. It is not a dangerous good for use, for transport by road, sea or air.

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.

FIELDS OF USE: Varnipack FoodGrade is especially indicated for the protection and varnishing of surfaces of up to medium physical-chemical stress, in direct, indirect or occasional contact with food, both in single-use and repeated packaging, especially in the sector of MDF printed food packaging, cardboard, labels, wood, derivatives and others. Also used in the exterior part of wine and liquors barrels and in wooden surfaces such as shelves for curing or displaying foodstuffs and other compatible surfaces. To mark and protect non-edible food barks and peels, 3D printed parts. Mainly used in the printed food packaging sector, also in health care sectors... hospitals, clinics, in industry, civil works, public and private buildings in general.

APPLICABLE by brush, roller, airless or air-mix, anilox rollers in the flexographic industry, industrial spraying. Always apply thin coats.

DRYING: air drying, or forced drying with hot air, IR infrared lamps or equivalent systems that increase temperature.

With Declaration of Compliance.

PERFORMANCE: Depending on the situation, type of base and subsequent use, we recommend between 12.5 ml. and 100 ml, applied in thin layers.

Product for professional use. For a correct application follow the instructions in the technical sheets, application guides and safety data sheets. In case of doubt, consult our technical service.

1.- OPTION B - VARNIFLEX FoodGrade BioHybrid (Soon available)

FEATURES: *VarniFlex FoodGrade* is a colorless, self-crosslinking, 1-component aqueous dispersion overprint varnish, partially bio-based (45%) for carbon footprint reduction, and widely certified for food contact, according to European Regulation EU 10/2011. Food contact varnish with gloss finish, formulated with modified acrylic copolymers, free of Bisphenol A (BPA free), APEO, formaldehyde, phthalates, heavy metals, etc.

VarniFlex FoodGrade BioHybrid as a self-crosslinking OPV achieves its best performance for printed food packaging with a short drying time at 80°C. Ideal balance of physicochemical performance in its category:

- High resistance to moisture and grease.
- Excellent transfer, wetting and leveling.
- Excellent adhesion, resistance to dry and wet rubbing, and compatibility with water-based and solvent-based printing inks.
- Good resistance to tack-blocking, with good static and dynamic COF coefficients of friction.
- OTR barrier function (depending on substrate).

- *Excellent gloss finish.*
- *Low Voc. Non-hazardous goods for use and transport by road, sea or air.*

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.

FIELDS OF USE: Mainly used in direct, indirect or occasional contact with food, in single or repeated use food contact packaging, especially for flexible printed food packaging made of PE (polyethylene), PP (polypropylene) and PET (polyethylene terephthalate), as well as compatible non-flexible printed packaging with MDF, paper and cardboard, labels, wood and other derivatives. Also, for the protection and varnishing of parts and surfaces up to medium physicochemical stress, such as wood and derivatives, plastics, 3D printing parts, in the food industry and auxiliary health sectors, hospitals, clinics, in industry, civil works and public and private buildings in general.

APPLICABLE by brush, roller, airless or air-mix, anilox rollers in the flexographic industry, industrial spraying. Always apply thin coats.

DRYING: forced drying with hot air, IR infrared lamps or equivalent systems that increase the temperature to at least 80°C.

With Declaration of Compliance.

PERFORMANCE: Depending on the situation, type of base and subsequent use, we recommend between 12.5 ml. and 100 ml, applied in thin layers.

Product for professional use. For a correct application follow the instructions 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.