

FK 45 FOODGRADE SPACHTEL

2-component high-solids epoxy resin quick-setting filler, certified according to VO (EU) 1935/2004, VO (EU) 10/2011 for direct contact with food

FAKOLITH®

Type of material



FK 45 FOODGRADE SPACHTEL is a resilient 2-component epoxy resin joint filler for joints/spaces in ceilings, walls and floors, tested for use in direct contact with food in accordance with VO (EC) 1935/2004 and VO (EU) 10/2011. The filler is also suitable for joints in container areas (with low expansion). Odorless, extremely fast drying, fibrous.

FK 45 FOODGRADE SPACHTEL is particularly suitable for surfaces that are temporarily or permanently in direct contact with solid or liquid food.

The filler is based on the 2-component epoxy resin coating FK 45 FOODGRADE and high-purity cellulose fibers. To achieve a non-slip surface, e.g. in the floor area, quartz sand can be sprinkled on the surface of the applied filler.

Properties



- 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 by tested GREEN-BIO.FILM.STOP technology (ISO 21702:2019-05, ISO 22196:2011-08).
- FK 45 FOODGRADE SPACHTEL produces a heavy-duty joint/surface with good resistance to most of the cleaning agents commonly used in the food industry.
- High abrasion resistance after through-drying: UNE EN ISO 5470-1:1999
- Can be painted over with 2K epoxy resin coating FK 45 FOODGRADE (does not have to, surface of the filler has very high abrasion resistance).
- No water absorption/non-swellable (avoidance of microbial infestation).
- No sagging of the joint/filler during drying.

FK 45 FOODGRADE SPACHTEL is suitable for filling joints, coves, cavities and other defects on a mineral substrate or a load-bearing 2K epoxy resin coating. Also suitable for repairing/refilling industrial gullies or basins, tanks, silos filled with liquids, e.g. ripening basins for cheese, cucumber basins.

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.

Legal provisions and certification

FK 45 FOODGRADE SPACHTEL complies with all current European regulations for materials in contact with foodstuffs according to VO (EG) 852/2004.

Further regulations for the certification of FK 45 FOODGRADE SPACHTEL: VO (EG) 1935/2004, VO (EG) 2023/2006, VO (EU) 10/2011 of the Commission and its subsequent amendments (EG) No. 1282/2011 regarding plastic materials and articles intended to come into contact with food. Regulation (EC) 2018/213 on the use of bisphenol A in paints and coatings intended to come into contact with food. With the implementation of the European regulations, criteria for the European market will be standardized. The standards define, among other things, various simulants as well as global and specific migration tests for each food group. The

previous tests for FK 45 FOODGRADE SPACHTEL were carried out with simulants A, B, D2 (OM2-40°C) and C (OM4-100°C). All details of the tests performed are included in the manufacturer's declaration of conformity.

The tests carried out by FAKOLITH Chemical Systems in the independent institutes APPLUS, TECNALIA and the National Institute of Food Technology (CNTA) confirm that FK 45 SPACHTEL 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:**
Remove release agent residues with FAKOLITH FK 11 Cleaner, if necessary. Remove sanding substances. Pretreat chalking substrates with DISPERLITH PRIMER. Apply FK 45 FOODGRADE SPACHTEL directly to non-chalking substrates.
- **Other mineral substrates:**
Check the strength and absorbency of the substrate. Prime highly absorbent or chalking substrates with DISPERLITH PRIMER. Otherwise, apply FK 45 FOODGRADE SPACHTEL directly onto the mineral

substrate.

- **2K epoxy coatings:**
Check bottom round for strength. Clean and sand the surface. Direct coating with FK 45 FOODGRADE SPACHTEL.
- **Substrates made of plastic / GRP:**
In principle, grouting can also be carried out here. However, it is always necessary to lay a sample to confirm the adhesion due to the different material properties. Clean and grind the surface. If necessary, coat directly with FK 45 FOODGRADE SPACHTEL.
- **Mold and bacteria infested substrates:**
Clean with FAKOLITH FK 12 diluted 1:4 with water. Then prime with DISPERLITH PRIMER.
- **Yeast and bacteria infested substrates:**
Clean with FAKOLITH FK 39. Then prime with DISPERLITH PRIMER.
- Substrates with **soiling due to grease, oil, soot:**
Clean with FAKOLITH FK 11 diluted 1:20 with water.
- **Anti-rust primer and adhesion promoter for iron, steel, stainless steel, aluminum:**

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.

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: The substrate must be clean, dry and load-bearing. The room and substrate temperature must not fall below +12°C and not exceed +30°C during application and drying. The surface temperature of the substrate to be coated should always be 3°C above the dew point. Maximum relative humidity during application: 70%.

Mixing: Stir component B. This process is important because the component is highly viscous at rest. Subsequently, slowly stir component B into component A using a powerful drill. Then allow to rest for 2 minutes.

Dilution: The strength of the joint filler varies, depending on the storage and ambient temperatures. Low temperatures increase, high temperatures decrease the viscosity. After stirring in component B, the joint filler is basically set ready for processing. In order to optimize the pot life, the joint filler can be diluted after 15 minutes with up to a maximum of 5% FK 45 FOODGRADE THINNER.

Important: Transfer the mixture into a clean bucket for processing. Any residues of component A from the binder can lead to disturbances during the setting of the joint filler. Only mix the quantity of material that can be processed within 30 minutes (see pot life).

The processing is carried out manually. Machine application has not been tested yet.

Important: To smooth the surface, generously spray FK 45 FOODGRADE THINNER onto the applied surface and smooth the surface. This procedure cannot be replaced by mixing the thinner into the filler.

If a smoother surface is desired, the surface can be ground smooth with a flex after 24 hours. A non-slip surface can be obtained by sprinkling quartz sand on the applied filler. Again, it is important that the surface has been smoothed with FK 45 FOODGRADE THINNER. The next day, vacuum/sweep off excess quartz sand.

Pot life

A + B (2.5 kg)	10° C	20° C	30° C
Pot life	1 hr. 45 min.	35 min.	20 min
A + B (5.0 kg)	10°C	21° C	32° C
Pot life	1 hr. 35 min.	30 min	15 min

VOC content

Category: j (Lb)
Not more than 500 g/l VOC (Directive 2004/42/CE-2010)
The mixture of comp. A+B contains less than 500 g/l VOC

Specific weight

Specific weights of the finished mixture (component A+B):
FK 45 FOODGRADE SPACHTEL white, gray: 1l = ~ 1,33 kg
FK 45 FOODGRADE SPACHTEL transparent: 1l = ~ 1,16 kg

Gloss level

Silk gloss

Colour shade

Standard color shades: white, gray (approx. RAL 7004), transparent.

Consumption

Layer thickness and theoretical productiveness of
FK 45 FOODGRADE FILLER:
1cm² joint = 100g/lfdm (theoretical volumetric minimum consumption)

Dilution

FAKOLITH FK 45 Thinner. Alternatively epoxy resin or universal thinner (final product then loses FOODGRADE quality).

Drying time

Relative drying times of a joint with 2 cm width x 2 cm depth:			
Ambient temperature (relative humidity 60-70%)	+ 15° C	+ 20° C	+ 30° C
Walkable / sandable / paintable	24-36 h	24 h	12-24 h
Passable	36 h	48 h	48 h

	The filler shows good general properties from a curing time of 24 hours and can already be walked on. However, we recommend exposing the coating to heavy chemical and mechanical loads only after a curing time of 2 days.
Application temperature	From +12°C substrate temperature.
Test criteria	VO (EC) 1935/2004, VO (EC) 1895/2005, VO (EC) 2023/2006, VO(EU) 10/2011, VO (EU) 1282/2011, EN 11861:2002, EN 1186-3:2002, EN 11.86-14:2002
Declaration of Conformity	Please request the declaration of conformity from the factory. For reasons of traceability and quality assurance, the quantity delivered and the intended use are recorded in the declaration of conformity. Please specify when ordering the declaration of conformity.
Storage	Up to 24 months from the date of filling, in well-sealed original packaging. It is recommended to store the product at a temperature between 15°C and 25°C. If stored too cool, crystals may form in component A, which can be dissolved again by heating the container to 20°C. This is a reversible effect which has no influence on the product quality. FK 45 FOODGRADE SPACHTEL must not be stored below +12°C.
Container	2.5 kg and 7.5 kg containers.
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, the local official regulations must be observed. Liquid materials must be given special treatment in compliance with the official regulations.
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	Please follow the instructions in the safety datasheets.

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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