

## Technical Product Information

Tile grouts

# DFX

## Designer epoxy tile grout

DFX



Fine, decorative, smooth, easily workable, two-component designer epoxy tile grout and adhesive, resistant to high chemical and mechanical loads, meeting RG requirements to DIN EN 13888 and R2 T requirements to DIN EN 12004. For effortless grouting of high-grade ceramic tile coverings. For decorative, same-colour bonding and grouting of glass mosaic, porcelain mosaic and tesserae. Grout's high resistance and hardwearing properties ensure brilliantly coloured joint pattern with lasting appeal, especially in moisture-exposed areas. Suitable in areas exposed to water, cleaners, chemicals, acids and natural fats, as well as compressive loads and washout action. For residential, commercial and industrial facilities. For showers, bathrooms, wellness suites and swimming pools, thermal baths, balconies and patios, retail areas, food-production facilities, laboratories and catering kitchens.

- For indoor and outdoor use
- for walls and floors
- Joint width: 1 - 10 mm
- Ideal for bonding and grouting mosaic
- eXtra fine, uniform and brilliantly coloured joint pattern
- eXtra easy to clean, as the surface is smooth, water- and dirt-repellent
- eXtra simple preparation, grouting and washing off
- eXtra high mechanical and chemical resistance
- eXtra strong adhesion to joint faces
- eXtra wide colour range
- Can be finished with Sopro Glitter in gold, silver and copper
- Specially matched to the Sopro joint and silicone shades
- Processing time: approx. 45 minutes
- 24-month shelf life

**Coverage: Approx. 2.0 kg/m<sup>2</sup> in each case for bonding and grouting mosaic. Depends on substrate, joint width and thickness/format of covering material.**



Packaging		Packages	Pallet weight
Bucket	3 kg	120	360 kg
Bucket	5 kg	72	360 kg

**Use**

For walls and floors, indoors and outdoors. For grouting ceramic tile coverings (stoneware, fully vitrified stoneware, earthenware, cast stone, agglomerate tiles, natural stone) and ceramic tile fittings. For decorative, same-colour bonding and grouting of glass mosaic, porcelain mosaic and tesserae. Particularly suitable for bathrooms and showers, on balconies and patios, and under exposure to: - Aggressive waters: in swimming pools with thermal water, mineral water, sea water and brine; in steam saunas and Turkish baths; in wellness suites; in breweries, wine cellars, wine-press houses and other drinks-sector facilities; in leather, paper, textile and pharmaceutical industries; in sewage works, incl. wastewater treatment and neutralization plants; in zoological gardens. - Chemicals/acids: in laboratories, chemical industry facilities and battery-charging rooms. - Natural fats: in meat and fish processing industry facilities, catering and domestic kitchens, milk and cheese dairies. - High loads and flushing/rinsing action: in wave pools, industrial washing facilities and reservoirs for industrial effluent. For regrouting washed-out, solid-surface joints on refurbishment/renovation contracts (minimum depth: 3 mm). For bonding coverings of thickness > 6 mm with Sopro SLM 988 smoothing agent. For larger or heavier formats, use of Sopro DBE 500 epoxy tile adhesive is recommended.

**Properties**

Sopro DFX is a decorative, extra-smooth, easily workable, two-component designer epoxy tile grout and adhesive, resistant to high chemical and mechanical loads, meeting RG requirements to DIN EN 13888 and R2 T requirements to DIN EN 12004. For brilliantly coloured joint pattern with lasting appeal, especially in moisture-exposed areas. Sopro DFX is easily workable and very easy to clean off. After curing, it is resistant to aggressive waters, natural fats, chemicals, mechanical loads, freeze-thaw cycles and temperatures up to +100°C. Ideal for backlit coverings/facings, e.g. for counters in bars or public buildings (with "translucent" colour). Sopro FEP plus translucent can be used to produce virtually colourless joints. When bonding and grouting differently coloured coverings, it remains unobtrusive and highlights original coloration. Optional enhancement through addition of Sopro gold, silver or copper glitter.

**Application**

To rule out proportioning errors, Components A and B of Sopro DFX are pre-batched. Do not prepare partial quantities as incorrect proportioning may impair curing. Add all Component B to Component A and mix for approx. 3 minutes using stirrer at slow speed (max. 400 rpm) to homogeneous, streak- and bubble-free consistency. Transfer prepared mix to suitable clean mixing container and thoroughly restir. Do not apply material directly from original supplied container. Mechanical mixing is essential. - Application as tile grout: Place prepared grout in joints and finish flush with surface using Sopro special grout float for epoxy. Strike off surplus material diagonal to joint. Use small quantity of clean water and sponge float to first emulsify, then wash off material residue from whole surface. Depending on ambient conditions, wait until grout has adequately set before cleaning. Regularly replace wash water with fresh water. Take care not to wash out grout from joints. No water shall be left standing on freshly grouted joints. For very rough surfaces, use warm wash water with optional addition of Sopro EAH 547 epoxy cleaning aid, emulsify with Sopro fine wash pad and wash off with Sopro viscose sponge. Where necessary, rub down grouted surface with Sopro ESE 548 epoxy film remover, though at earliest after approx. 18 hours. Please observe guidelines in technical data sheets for Sopro EAH 547 epoxy cleaning aid and Sopro ESE 548 epoxy film remover. Enhancement with Sopro glitter: Where a shiny metallic effect is required, Sopro gold glitter (order no. 1019), Sopro silver glitter (order no. 1020) or Sopro copper glitter (order no. 1021) can be added in following proportions: 3 kg container: add max. 100 g (1 bag) Sopro gold, silver or copper glitter to prepared mix. 5 kg container: add max. 150 g (1.5 bag) Sopro gold, silver or copper glitter to prepared mix. Stir thoroughly for at least 2 minutes. Addition of glitter changes consistency, colour and chemical resistance of product. Trial grouting is recommended. - Application as adhesive: First apply contact layer using straight edge

of notched trowel, then apply combed bed with serrated edge. When laying glass mosaic, flatten out crests. Position mosaic or tile, press down over full surface and align. Prepare only as much substrate as can be covered during working life. To increase viscosity when bonding coverings of thickness > 6 mm, add 1% by weight of Sopro SLM 988 smoothing agent to prepared adhesive and thoroughly restir. Note: - If necessary where lower temperatures prevail, warm up grout components prior to mixing; at higher temperatures, water bath cooling of grout components is recommended prior to mixing. - Wash down ceramic coverings and glass mosaic that have a rough or unglazed surface as soon as possible to remove resin film. - Sample areas (mock-ups) are required for coverings with open-pored, rough or unglazed surface and for glass materials to allow assessment of visual impact of finished installation. - As some types of natural stone may be prone to discoloration in contact with tile grouts, sample areas (mock-ups) shall be prepared for discoloration-sensitive natural stone coverings in order to assess suitability of grout. - Wear suitable protective clothing, protective gloves and eye protectors/goggles during application. - Do not apply outdoors under direct exposure to sunlight. - Wash water disposal: Pour wash water into barrels and allow solids to settle. Cured epoxy resin sediment may then be disposed of as construction waste. Wash water shall be suitably disposed of.

<b>Application temperature</b>	+12°C to +30°C
<b>Commencement of grouting</b>	Grouting shall commence as follows, depending on adhesive: for Sopro DFX designer epoxy tile grout or Sopro DBE 500 epoxy tile adhesive, at earliest after approx. 24 hours; for Sopro PUK 503 PU adhesive and mineral adhesives, after setting and drying out. (Please observe guidelines in technical data sheet for relevant bedding adhesive.)Specified times depend on ambient conditions (temperature and humidity).
<b>Floor heating</b>	Suitable
<b>Loadable</b>	Mechanically and chemically resistant after approx. 4 days. In areas subsequently exposed to heat or steam loads: after approx. 7 days.
<b>Shelf life</b>	Shelf life approx. 24 months, subject to storage in cool (min. +10 °C), dry, frost-free conditions in unopened containers. In case of unforeseen exposure to cold, adjust temperature of material to 35–40°C in water bath prior to application so as to achieve a workable consistency, optimize reaction between two components and thereby enhance curing process.
<b>Specified times</b>	Apply for normal temperature range of +23 °C and 50 % relative humidity; higher temperatures shorten and lower temperatures lengthen these times.
<b>Substrate pretreatment</b>	Thoroughly clean open, raked-out joints. Joint base and faces shall be dry and free from dust, grease, oil, mortar and adhesive residue. Particular care shall be taken to prevent formation of voids at joint base.
<b>Tool cleaning</b>	Keep tools clean, even when in permanent use, using warm water or Sopro EAH 547 epoxy cleaning aid, applied while grout is still fresh. Once set, material requires mechanical removal.
<b>Tools</b>	Slow-speed stirrer, mixing attachment, Sopro special grout float for epoxy, Sopro sponge float, Sopro viscose sponge, Sopro fine wash pad, notched trowel with suitable serration (3 – 4 mm for tesseræe), roller set for cleaning.
<b>Walkable / groutable</b>	After approx. 24 hours at +20 °C.
<b>Working life</b>	Approx. 45 minutes
<b>joint width</b>	1-10 mm
<b>minimum joint depth</b>	2-3 mm
<b>Test certificates</b>	– DIN EN 12004: R2 T- DIN EN 13888: RG – BG Verkehr (institution for statutory accident insurance and prevention for transport and traffic): (Test certificate in preparation)

**Licence** EMICODE system of GEV (German Association for the Control of Emissions in Products for Flooring Installation, Adhesives and Building Materials): EC1<sup>PLUS</sup> ("very-low-emission-plus") rating

**Safety precautions**

**Component A**

GHS07

**Signal word:** Attention

Contains bisphenol F epoxy resin, thiabendazole (ISO), 2-(4'-thiazolyl)-benzimidazole, pyriithione zinc.

EUH205 Contains epoxy constituents. May produce an allergic reaction. EUH208

Contains. 1,6-Bis(2,3 epoxypropoxy)hexan. May produce an allergic reaction. EUH208

Contains reactionmass of Bis-(1,2,2,6,6-pentamethyl-4-piperidyl)sebacat und

Methyl-1,2,2,6,6-pentamethyl-4-piperidylsebacat. May produce an allergic reaction.

EUH208 Contains. Reactionproduct: Bisphenol-A-Epichlorhydrinharze mit

durchschnittlichem Molekulargewicht <= 700. May produce an allergic reaction. H315

Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious

eye irritation. H412 Harmful to aquatic life with long lasting effects.

P261 Avoid breathing dust/smoke/gas/mist/vapour/aerosol. P264 Wash hands

thoroughly after handling. P273 Avoid release to the environment. P280 Wear

protective gloves/protective clothing/eye protection/face protection/ P332+P313 If

skin irritation occurs: Get medical advice/attention. P337+P313 If eye irritation

persists: Get medical advice/attention.

Labelling in accordance with Regulation (EC) No 1272/2008 (CLP).

**Component B**

GHS05 GHS07 GHS09

**Signal word:** Danger

Contains unsaturated C18 fatty acids, reaction product with tetraethylenepentamine, 3-aminomethyl-3,5,5-trimethylcyclohexylamine,

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine.

H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin

reaction. H410 Very toxic to aquatic life with long lasting effects.

P261 Avoid breathing dust. P273 Avoid release to the environment. P280 Wear

protective gloves/protective clothing/eye protection/face protection/ hearing

protection/... P303+P361+P353 IF ON SKIN (or hair): Take off immediately all

contaminated clothing. Rinse skin with water [or shower]. P310 Immediately call a

POISON CENTER/doctor/... P391 Collect spillage. P305+P351+P338 IF IN EYES: Rinse

cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

Labelling in accordance with Regulation (EC) No 1272/2008 (CLP).

Colour	Order no.
translucent	1200
white 10	1201
light grey 16	1202
silver grey 17	1203
manhattan 77	1204
grey 15	1205
sand grey 18	1206
stone grey 22	1207
concrete grey 14	1208
basalt 64	1209
anthracite 66	1210
black 90	1211
parchment 27	1212
light beige 29	1213
beige 32	1214
jura beige 33	1215
sahara 40	1216
brown 52	1217
bali brown 59	1218
aqua 86	1219

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Please observe the current version of the product information, the currently valid declaration of performance under the EU Construction Products Regulation, and the latest version of the relevant safety data sheet to EC Regulation No 1907/2006, also available from the Internet at [www.sopro.com](http://www.sopro.com)! This document serves as a product description and sets out general details, based on empirical and test data, that take no account of specific cases of application. No liability may be construed and no claims shall be accepted in respect of these details. Should you require assistance, please contact our Technical Counselling Service.