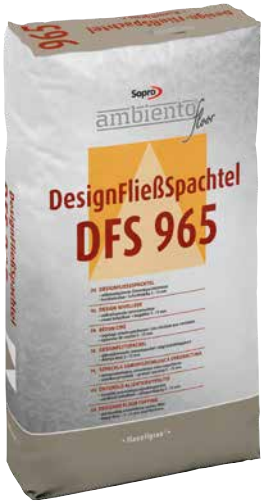
Sopro DFS ambiento®

Self-levelling designer floor topping



Decorative, self-levelling, rapid-set, cementitious designer floor topping for production of finished floor surfaces.
Low-chromate to Regulation (EC) No 1907/2006, Annex XVII.
Only suitable for professional floor surface filling by trade applicators.

- **Unique, customized floor finishes**
- **Heavy-duty, extra-hardwearing**
- **Self-levelling**
- **Rapid-setting and quick-drying**
- **For dry interiors**
- **EMICODE system of GEV (German Association for Control of Emissions in Products for Flooring Installation): EC1PLUS ("very-low-emission-plus") rating**
- **DGNB (German Sustainable Building Council): Top quality level 4, Line 8***

white* Order no. 963 | silver* Order no. 964 | flannel grey* Order no. 965

Use	Decorative, self-levelling, designer floor topping for production of even, hardwearing finished floor surfaces in dry interiors, e.g. in shops, boutiques, salesrooms, car showrooms, exhibition spaces, salons, workshops, foyers, offices, medical practices, lofts, restaurants, discotheques, living rooms, storerooms, cellar spaces etc.
Suitable substrates	Cement and calcium sulphate screeds (heated/unheated), concrete (min. 6 months old)
Coat thickness	5–15 mm
Mixing ratio	4.75–5.25 ltr water : 25 kg Sopro DFS Take care to ensure exact proportioning of water.
Flow table value	24.0–25.0 cm (Vicat ring to DIN 1164; size: internal diameter 65 mm at top and 75 mm at bottom, height 40 mm; on suitable, dry, clean glass plate)
Working life	30–40 minutes; stiffened mortar shall not be retempered by addition of water or fresh mortar to restore workability.
Walkable	After 2–3 hours
Fully loadable	As finished floor surface: after approx. 24 hours per cm coat thickness
Application temperature	Between +5 °C and max. +25 °C
Coverage	Approx. 1.7 kg/m² per mm coat thickness
Abrasion resistance	From min. 8 mm coat thickness, able to accommodate loads from lift stackers and chair castors to EN 12529; suitable for pneumatic- and solid-rubber-tyred vehicles (industrial trucks)
Shelf life	Approx. 6 months, subject to storage in original unopened containers
Packaging	25 kg bag

* For technical reasons, the colours shown here may diverge from those of the fully cured material.
** Based on DGNB (German Sustainable Building Council) criterion »ENV1.2 Local Environmental Impact« (version 2015).

EN 07.11.16 · DE 13.09.16 · Subject to change without notice

Properties

Sopro DFS is a hardwearing, self-levelling, rapid-set, cementitious designer floor topping for production of creative finished floor surfaces with high compressive strength, flexural tensile strength and abrasion resistance. Sopro DFS is suitable for use in dry interiors and offers excellent workability and hardened mortar properties thanks to Sopro Mikrodur® technology.

Substrate preparation

Substrate shall be dry, strong, crack-free, dimensionally stable and free from adhesion-impairing substances (e.g. dust, oil, wax, release agent, efflorescence, laitance, paint, lacquer and varnish residue, old flooring adhesive residue).
Prior to application, patch holes, chips, spalls and irregularities with Sopro RAM® 3 454 renovation and levelling mortar or (self-levelling) Sopro HF-S 563 high-strength floor-levelling compound. Substrate preparation shall be such as to allow application of Sopro DFS in as uniform a coat thickness as possible.
Prefill any existing cracks in screed with structurally bonding Sopro GH 564 casting resin. Cement screeds shall exhibit a moisture content ≤ 2.0% CM and meet at least requirements of strength class CT-C35-F5. Use of screeds incorporating Sopro Rapidur® B1 turbo rapid-set screed binder – which are ready to receive covering after only 6 - 12 hours – is recommended for fast-track or tightly scheduled projects. Anhydrite screeds shall exhibit a moisture content ≤ 0.5% CM and be adequately ground and vacuum-cleaned.
Prior to installation, screeds incorporating heating elements shall, during commissioning, be heated up and allowed to cool (max. residual moisture: ≤ 1.8% CM for cement screeds, ≤ 0.3% CM for calcium sulphate screeds). Incorporate a suitable Sopro perimeter insulation strip at junctions with vertical elements to prevent restraint and escape of self-levelling compound. Where perimeter insulation strips are already incorporated in substrate, check these for suitability and adopt same line and width of these strips.
Assessment of substrate shall comply with relevant standards and regulations. A minimum average pull-off strength of 1.0 N/mm² is required for substrate.
Where necessary, surface shall be prepared by sand and/or shot blasting.
Existing expansion and bay joints in substrate, e.g. at doorways, shall be carried over and designed into topping. As Sopro DFS is a bonded topping, bay sizes of concrete substrate shall be observed. Further subdivision into smaller bays of approx. 10 × 10 m is recommended.
Special design measures are needed for anhydrite screeds (for further details, please contact our technical counselling service). Given that Sopro DSF is used to produce finished floor surfaces, application in uniform thickness is required to avoid colour patchiness due to uneven drying behaviour and to ensure uniform setting.

Priming

Sopro BH 869 construction resin (coverage: 250–300 g/m²), Sopro EPG 522 epoxy primer (coverage: 300–500 g/m²) or Sopro ESG 868 epoxy primer sealer (minimum coverage 1,000 g/m²): blinded to excess with Sopro QS 511 coarse silica sand. For calcium sulphate and self-levelling calcium sulphate screeds, apply two coats of Sopro ESG 868.

Application

Fill clean container with 4.75–5.25 ltr clean mains water, add 25 kg Sopro DFS and mix mechanically to homogeneous, lump-free consistency.
Pour mixed compound onto prepared substrate and spread uniformly using squeegee or finishing trowel.
To achieve optimum set, protect freshly applied coat from temperatures exceeding +25 °C, draughts and sunshine through window areas during application. Do not spray water onto freshly treated surface (risk of staining).
Applied material shall not be worked after end of specified 30–40 minute working life as this may impair its appearance. Do not cover surface – even partly – with plastic sheeting, cardboard or the like during the first 14 days as this may lead to visual flaws. Heated floor constructions may resume normal operation after 7 days.

Surface treatment

Surface protection is essential and shall be tailored to future use and required visual impact. Application of a protective finish is needed to protect against soiling and to achieve specific surface strengths or slip resistances. Use of suitable surface protection products, such as those offered by Dr. Schutz specifically for cementitious designer flooring, is recommended.

Notes on surface appearance

Sopro DFS ambiento® self-levelling designer floor topping is used to create "one-off" floor finishes* that are truly unique in character and form. Floor finish may appear cloudy, patchy and of varying coloration. It may exhibit marks left by treatment, sanding or pouring, streaks and shifting hues. Occurrence of small cracks in topping cannot be ruled out. Such features do not constitute flooring defects. Given that Sopro DSF floor toppings are individually placed by craftspersons, they cannot achieve same uniform accuracy and flawless appearance as is case, for example, with industrially manufactured flooring**. Prior to contract award, adequately sized sample areas should be installed by relevant tradespersons and finished with preferred surface protection product.
Contracted tradespersons shall be experienced in use of high-grade, self-levelling designer floor toppings.

Cleaning and care

Clean with damp cloth. Add Sopro WP 707 wipe-on care to mopping water as specified in technical product information. Do not use scouring agents.

* See BEB e.V. (German Federal Association of Screed and Floor Covering) guidance paper "Designer flooring" (September 2014)
** See BSR e.V. (German Federal Association of Certified Experts for Interiors and Furnishings) data sheet "Decorative, mineral floor toppings" (May 2013)

Specified times

Apply for normal temperature range of +23 °C and 50% relative humidity; higher temperatures shorten and lower temperatures lengthen these times.

Tools/ tool cleaning

Sopro turbo stirrer attachment, squeegee, finishing trowel, spiked roller; wash tools with water immediately after use

Test certificate

Reaction to fire to DIN EN 13501-1: $A2_{fl}$-s1

Safety precautions

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

GHS05
Signal word: Danger

Contains Portland cement. Exhibits strong alkaline reaction upon contact with moisture/water; protection required for skin and eyes. All standard precautions for the handling of construction materials/chemicals shall be taken.

Hazard statements: H318 Causes serious eye damage.

Precautionary statements: P102 Keep out of reach of children. **P261** Avoid breathing dust. **P280** Wear protective gloves/protective clothing/eye protection/face protection. **P302+P352** IF ON SKIN: Wash with plenty of water and soap. **P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. **P310** Immediately call a POISON CENTER or doctor. **P332+P313** If skin irritation occurs: Get medical advice/attention.

GISCODE (German hazardous substances classification): ZP 1 · Low-chromate to Regulation (EC) No 1907/2006, Annex XVII

CE marking

CE
0767

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CPR-DE3/0963.,0964.,0965.1.eng
EN 13813:2002 CT-C40-F10-A12
Sopro DFS (all colours)
Cementitious screed material for internal use

Reaction to fire	Class $A2_{fl}$-s1
Release of corrosive substances	CT
Water permeability	NPD
Water vapour permeability	NPD
Compressive strength	C40
Flexural strength	F10
Wear resistance	A12
Sound insulation	NPD
Sound absorption	NPD
Thermal resistance	NPD
Chemical resistance	NPD
Release of dangerous substances	See SDS