Surface fillers, screeds and renders

Self-levelling designer floor topping

DFS

Decorative, heavy-duty, self-levelling, rapid-set, one-component, cementitious designer floor topping for production of finished floor surfaces in commercial and private facilities. Suitable for shops, boutiques, salesrooms, car showrooms, salons, offices, medical practices, lofts, restaurants, discotheques, living rooms, garages, cellar spaces etc. Only suitable for professional floor coating by trade applicators!

- For floors, indoors
- Coat thickness: 5-15 mm
- Unique, customized floor finishes
- Directly usable finish
- Quick-drying
- Compressive strength after 28 days: approx. 40 N/mm²
- Flexural tensile strength after 28 days: approx. 10 N/mm²
- Abrasion resistance class (Böhme test): A12
- Working life: 30-40 minutes
- Walkable: after 2-3 hours
- Loadable as finished floor surface: after approx. 24 hours per cm coat thickness
- Suitable for floor heating systems
- Low-chromate to Regulation (EC) No 1907/2006, Annex XVII
- DGNB: Top quality level 4, Line 8, based on DGNB (German Sustainable Building Council) criterion "ENV1.2 Local Environmental Impact" (2018 version)
- Walkable and groutable: after 3 - 4 hours

Coverage: Approx. 1.7 kg / m² / mm

Packaging		Packages	Pallet weight
Bag	**25 kg**	40	1000 kg

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, warehouses and for production of industrial flooring.
Properties	Sopro DFS is a hardwearing, self-levelling, rapid-set, cementitious designer floor topping for creative application in producing 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 ambiento® self-levelling designer floor topping in as uniform a coat thickness as possible. This serves to minimize colour patchiness due to uneven drying behaviour and ensure uniform setting. Fill 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. Unheated calcium sulphate 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 Sopro RDS 960 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 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 substrate shall be observed. Further subdivision into smaller bays of approx. 10 × 10 m is recommended. Limit bay size to max. 8 × 8 m for floating construction and to max. 6 × 6 m for heated screeds. Special design measures are needed for calcium sulphate screeds.
Priming	Sopro BH 869 construction resin (coverage: 250 – 300 g/m²), Sopro EPG 1522 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 mixing container with specified quantity of clean mains water, add Sopro DFS ambiento® self-levelling designer floor topping 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.
Water requirement	Take care to ensure exact proportioning of water.
Application temperature	+15 °C to +25 °C
Castor chair 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).
Cleaning and care	Cleaning with damp cloth. Do not use scouring agents.
Coat thickness	5 - 15 mm
Flow table value	24 cm-25 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)
Loadable	As finished floor surface: after approx. 24 hours per cm coat thickness
Maturing time	3 - 5 minutes
Notes on surface appearance	Sopro DFS ambiento® self-levelling designer floor topping is used to create "one-off" floor finishes 1) 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. Cracking 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 2). 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.
Shelf life	Approx. 6 months (in dry conditions, in original, unopened containers)
Specified times	Apply for normal temperature range of +23 °C and 50 % relative humidity; higher temperatures shorten and lower temperatures lengthen these times.
Suitable substrates	Cement and calcium sulphate screeds (heated/unheated), concrete (min. 6 months old)
Tool cleaning	Wash tools with water immediately after use
Tools	Use of Sopro turbo stirrer attachment with suitable paddle is recommended for mixing material. Freshly applied filler can be spread and levelled using various tools, e.g. squeegee, finishing trowel, spiked roller etc. Visual impact of product is largely determined by choice of tools, timing of operations and workmanship. Work procedure, including choice of suitable tools, is responsibility of applicator and should always be tested in advance using sample area.
Walkable	After approx. 2 hours
Working life	30 - 40 minutes; stiffened mortar shall not be retempered by addition of water or fresh mortar to restore workability
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).
slip resistance	Slip resistance class to DIN 51130: R10
strength class	CT-C40-F10-A12
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 or BETONPROTEC specifically for cementitious designer flooring, is recommended. Surface can be ground to produce micro-terrazzo appearance.
Test certificates	DIN 51130: Determination of anti-slip properties using test specimens: R10 (all colours) DIN EN 13501-1: Reaction to fire class A2fl.-s1
Licence	EMICODE system of GEV (German Association for the Control of Emissions in Products for Flooring Installation, Adhesives and Building Materials): EC1^{PLUS} ("very-low-emission-plus") rating
Safety precautions	Labelling in accordance with Regulation (EC) No 1272/2008 (CLP). GHS05 **Signal word:** Danger H318 Causes serious eye damage. P102 Keep out of reach of children. P280 Wear protective gloves/protective clothing/eye protection/face protection/ 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/doctor. P501 Dispose of contents/container in accordance with regulations. Contains: Portland cement, Cr (VI) < 2 ppm. Low-chromate to Regulation (EC) No 1907/2006, Annex XVII GISCODE ZP1
Disposal	The generation of waste should be avoided or minimized wherever possible. Recover if possible. A waste code (EWC) according to European List of Waste (LoW) cannot be specified, due to dependence on the usage. Contact and send to an authorized waste disposal service. Methods of disposal: Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Do not dispose of waste into sewers. Hazardous waste: Yes Disposal considerations: Do not allow to enter drains or watercourses. Dispose of product according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority. Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Empty containers or liners may retain some product residues. Do not re-use empty containers.
footnote	1) See BEB e.V. (German Federal Association of Screed and Floor Covering) guidance paper "Designer flooring" (September 2014) 2) See BSR e.V. (German Federal Association of Certified Experts for Interiors and Furnishings) data sheet "Decorative, mineral floor toppings" (May 2013)

Order no.	Colour
963	white
964	silver
965	flannel grey

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! 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.