



Sopro AFS 561

Anhydrite floor-levelling compound



White, low-stress, flow-applied, self-levelling alpha-hemihydrate-based filler used to produce smooth, unbroken surfaces for subsequent installation of floor coverings.

- For 1–30 mm coat thicknesses
- Particularly suitable for mastic asphalt screeds
- Ideal for calcium sulphate- and gypsum-bound substrates
- Rapid-setting
- Pumpable
- Shrinkage-free
- Suitable for floor heating systems
- 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
- DGNB (German Sustainable Building Council): Top quality level 4, Line 8¹⁾
- For indoor use

Use	White floor-levelling compound for creation of smooth, unbroken surfaces to receive any flooring type, e.g. ceramic tiles, natural stone coverings, carpeting, parquet, linoleum and PVC.
Suitable substrates	Calcium sulphate (anhydrite and self-levelling anhydrite) screeds, gypsum-based screeds, alpha-hemihydrate-based screeds, hollow floor systems. Also for use on magnesium oxychloride (magnesite) screeds. Particularly suitable as floor-levelling compound for mastic asphalt screeds. Sopro AFS 561 is only suitable for dry interiors. Building elements in contact with ground should be waterproofed/damp-proofed by others in accordance with relevant standards.
Coat thickness	1–30 mm. For thickness upwards of 10 mm, may be extended by up to approx. 50 % of prepared compound volume with e.g. graded 0–2 mm sand.
Mixing ratio	6.0–6.5 ltr water : 25 kg Sopro AFS 561. 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	Approx. 40 minutes
Walkable	After approx. 3 hours
Ready to receive floor covering	For coat thicknesses up to 10 mm, after approx. 24 – 36 hours. Before proceeding to install floor coverings, CM measurement should be performed to determine residual moisture. This should be ≤ 0.5 % CM for unheated floors and ≤ 0.3 % CM for heated systems ²⁾ .
Application temperature	From +5 °C to +25 °C (substrate, air, material)
Castor chair resistance	Suitable (for castors to EN 12529) upwards of min. 2 mm coat thickness
Floor heating	Suitable
Strengths	Compressive strength: approx. 25 N/mm ² after 28 days; flexural tensile strength: approx. 7.5 N/mm ² after 28 days
Coverage	Approx. 1.5 kg/m ² per mm coat thickness
Shelf life	Approx. 6 months, subject to storage on pallet in dry, cool conditions in original unopened containers; airtightly seal opened containers immediately after use
Packaging	25 kg bag

EN 06.12.18 · DE 12.04.18 · Subject to change without notice

¹⁾ Based on DGNB (German Sustainable Building Council) criterion "ENV1.2 Local Environmental Impact" (2015 version).

²⁾ As specified by "Building trades co-ordination committee procedures for heated floor constructions", February 2005 edition, issued by Bundesverband Flächenheizung und Flächenkühlungen e.V. (German Federal Surface Heating and Cooling Association), Hochstrasse 113–115, D-58095 Hagen

Application of Sopro AFS 561 anhydrite floor-levelling compound to mastic asphalt screed



1 Roll Sopro HPS 673 bonding primer onto unblinded mastic asphalt screed. Sopro GD 749 primer is recommended for pretreatment of absorbent substrates (e.g. anhydrite screeds).



2 When Sopro HPS 673 has dried (after 1–2 hours), fix self-adhesive Sopro RDS 960 perimeter insulation strip.



3 Fill mixing bucket with specified quantity of water and add Sopro AFS 561.



4 Mix Sopro AFS 561 to homogeneous, lump-free consistency.



5 Self-levelling Sopro AFS 561 compound is easy to pour onto substrate.



6 Spread Sopro AFS 561 uniformly to required coat thickness using squeegee or finishing trowel.



7 A spiked roller may be used to release entrapped air from freshly applied levelling compound. Before proceeding with installation, allow Sopro AFS 561 to dry for min. 24–36 hours and perform CM measurement to determine residual moisture.



8 Pretreat surface with Sopro EPG 522 epoxy primer or (one-component) Sopro MGR 637 multi-purpose primer to prevent moisture migration back into anhydrite screed construction. Add all Sopro EPG 522 Component B to container with Component A and mix to homogeneous consistency.



9 Transfer prepared mix to clean container and restir.



10 When substrate coated with Sopro AFS 561 is walkable and has been CM tested for residual moisture, pour on Sopro EPG 522 or Sopro MGR 637 ...



11 ... spread reaction resin primer using Sopro short-pile roller to form thin film, taking care to avoid ponding ...



12 ... and blind with 0.4–0.8 mm Sopro QS 511 coarse silica sand.



13 After Sopro EPG 522 or Sopro MGR 637 has fully dried (after approx. 24 hours or 30–40 minutes respectively), use industrial vacuum cleaner or broom to remove surplus silica sand.



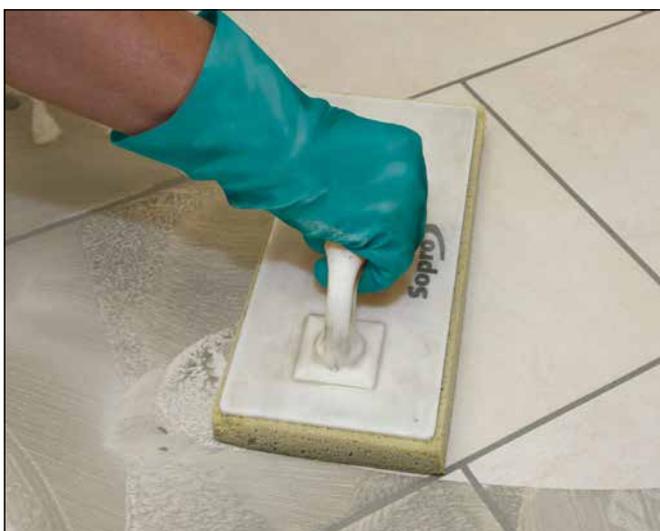
14 Apply Sopro flexible tile adhesive (e.g. Sopro FKM 444 XL, Sopro VF XL 413) to dried primer coat.



15 Place tiles in adhesive bed and tap to align.



16 Finish joints with Sopro tile grout (e.g. Sopro DF 10 flexible designer tile grout or Sopro Brilliant® water-repellent tile grout).



17 Wash down grouted surface.



18 Cut off top of Sopro RDS 960 perimeter insulation strip with utility knife.

Properties

Sopro AFS 561 is a white, pumpable, self-levelling, rapid-set, alpha-hemihydrate-based filler used to produce smooth, unbroken surfaces to receive any flooring type, e.g. ceramic finishes, natural stone tiles, textile and elastic coverings. Particularly suitable for calcium sulphate-based, gypsum-based and mastic asphalt screeds as well as board subfloors.

Material composition

Sopro AFS 561 is a white, premixed, ready-to-use dry mortar comprising alpha-hemihydrate calcium sulphate, rapid-hydrating components, selected silica sands of predefined particle size, resins and special binder combinations.

It is chromate free, very-low-emission (EMICODE EC1^{PLUS}) and contains no Portland cement. Risk of skin irritation is thus eliminated due to favourable pH value.

Substrate preparation

Substrate to be levelled should be dry, solid, strong, rigid, crack-free and free from any adhesion-impairing substances, e.g. oil, dust, wax, release agent, efflorescence and laitance. Any existing cracks should be filled with structurally bonding Sopro GH 564 casting resin.

Gypsum-based and calcium sulphate-based screeds should be dry; maximum moisture content: ≤ 0.5 % CM for unheated floors and ≤ 0.3 % CM for heated systems.

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, adopt same line and width of these strips.

Priming

When sufficiently dry, gypsum-based and calcium sulphate-based screeds should be pretreated with Sopro GD 749 primer in undiluted form (flash-off time: 12 hours). All other substrates should likewise be coated with undiluted primer. Allow primer coat to dry properly. Mastic asphalt screeds should be pre-treated with Sopro HPS 673 bonding primer.

Application

Fill clean container with 6.0–6.5 ltr water, add 25 kg Sopro AFS 561 and mix mechanically to homogeneous, creamy, lump-free consistency. Then pour mixed compound onto prepared substrate and spread uniformly to required coat thickness, where possible in single operation, using squeegee or finishing trowel. If, in specific cases, application in several coats proves necessary, following coat should be applied as soon as preceding coat is walkable. A spiked roller may be used to release entrapped air from freshly applied levelling compound. Sopro AFS 561 self-levels to produce a smooth, even and unbroken surface.

For 10–30 mm coat thicknesses, Sopro AFS 561 may be extended, e.g. with 0–2 mm graded sand, by up to approx. 50 % of prepared compound volume. To rule out risk of batching errors, sand should be added to ready prepared levelling compound.

For treatment of large areas, Sopro AFS 561 may be efficiently prepared and applied using mixing pump equipment. For recommendations regarding suitable equipment, please contact our technical counselling service.

Freshly applied levelling compound should be protected from direct exposure to sunlight and draughts. Sopro AHK 560 anhydrite flexible tile adhesive is recommended for laying ceramic tiles, terracotta or discoloration-resistant natural stone tiles on Sopro AFS 561. Depending on age of Sopro AFS 561 coating, scuff sanding may be advisable to remove any dirt or soiling prior to priming.

Prior to application of Sopro AFS 561, heated screeds should undergo heating cycle in accordance with relevant procedures and standards.

Temperature in area of heating elements should not exceed +60°C. Substrate temperature should not exceed +18°C at time of applying Sopro AFS 561.

For filler coat thicknesses upwards of 10 mm, a further heating cycle is required after 3 days.

Before proceeding to install floor coverings, CM measurement should be performed to determine residual moisture. This should be ≤ 0.5 % CM for unheated floors and ≤ 0.3 % CM for heated systems³⁾. After full drying, scuff sanding of surface with 16-grit sandpaper is recommended. For subsequent tiling, Sopro AFS 561 should be pretreated with reaction resin primer (Sopro EPG 522 epoxy primer or Sopro MGR 637 multi-purpose primer) to prevent moisture migration back into screed construction.

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

Mixing attachment, squeegee, finishing trowel, mixing pump (e.g. Putzknecht S 48 or Putzmeister G 78), spiked roller; wash tools with water and soap immediately after use.

Disposal

Do not allow to enter drains/sewers, open waters or ground. Hand over only fully emptied containers for recycling. Once dried, residual material may be disposed of as domestic waste.

Test certificate

MPA Dresden (Materials Test Institute Dresden): Reaction-to-fire class: A2_{fl}-s1

Disposal Considerations

Waste treatment methods. Recover if possible. In so doing, comply with the local and national regulations currently in force.

91/156/EEC, 91/689/EEC, 94/62/EC and subsequent amendments.

Disposal of hardened product (EC waste code) : 17 01 04

Disposal of not hardened product (EC waste code) : 17 07 01

The suggested European waste code is just based on the composition of the product.

According to the specific process or application field a different waste code may be necessary.

³⁾ As specified by "Building trades co-ordination committee procedures for heated floor constructions", February 2005 edition, issued by Bundesverband Flächenheizung und Flächenkühlungen e.V. (German Federal Surface Heating and Cooling Association), Hochstrasse 113–115, D-58095 Hagen

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

Exempt from labelling requirements under Regulation (EC) No 1272/2008 (CLP). All standard precautions for the handling of construction materials/chemicals should be taken.

EUH210 Safety data sheet available on request.

Precautionary statements: P102 Keep out of reach of children. **P332+P313** If skin irritation occurs: Get medical advice/attention.

German Water Hazard Class (WGK): WGK 1: slightly hazardous to water (self-assessment in accordance with VwVwS – German Administrative Regulations on the Classification of Substances Hazardous to Waters into Water Hazard Classes – of 17.05.1999)

GISCODE CP1 · Calcium sulphate-based surface filler

CE marking

CE 0767	Sopro Sopro Bauchemie GmbH Biebricher Straße 74 – 65203 Wiesbaden (Germany) www.sopro.com
11 CPR-DE3/0561.2.eng EN 13 813:2002 CA-C25-F7 Sopro AFS 561 Calcium sulfate screed material for internal use	
Reaction to fire	Class A2 _s -s1
Release of corrosive substances ph value	CA ≥ 7
Water permeability	NPD
Water vapour permeability	NPD
Compressive strength	C25
Flexural strength	F7
Wear resistance	NPD
Sound insulation	NPD
Sound absorption	NPD
Thermal resistance	NPD
Chemical resistance	NPD
Release of dangerous substances	see SDS

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