

High-strength floor-levelling compound

HF-S 563



High-performance, flow-applied, cementitious floor-levelling compound, particularly suitable for production of finished surfaces subject to high mechanical loads in commercial/industrial facilities.

With Mikrodur[®] technology for exceptionally high strengths and superplasticizing admixture for excellent flow properties. Pumpable, self-levelling and rapid-set. Suitable for trafficking by industrial trucks and forklifts, for accommodating loads from chair castors and for use in conjunction with floor heating. For use in workshops, factory halls, storerooms, garages, basements, cellars etc. Also for use as base for laying heavy-duty tile and natural stone coverings.

- For floors, indoors
- Coat thickness: 4 - 40 mm
- Compressive strength after 28 days: approx. 45 N/mm²
- Flexural tensile strength after 28 days: approx. 11 N/mm²
- Abrasion resistance class (Böhme test): A12
- Working life: 30-40 minutes
- Walkable: after 2-3 hours
- Ready to receive ceramic covering: after 2 - 3 hours
- Loadable as finished floor surface: after approx. 24 hours per cm coat thickness
- 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)

Coverage: Approx. 1.7 kg / m² / mm



| Packaging | | Packages | Pallet weight |
|-----------|-------|----------|---------------|
| Bag | 25 kg | 40 | 1000 kg |

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| Use | <p>High-performance, self-levelling surface filler used to produce even, practically unbroken, heavy-duty finished floor surfaces indoors. E.g. for industrial facilities subject to high mechanical and dynamic loads (trafficking by heavy-goods vehicles or industrial trucks), workshops, factory halls, storerooms, garages, basements, cellars. Sopro DFS ambiente[®] self-levelling designer floor topping is recommended for production of visually appealing, factory-pigmented surfaces. Outdoor application is subject to prior consultation with Sopro Technical Service team (+ 49 611 1707 - 111). Sopro HYD 546 Hydrodur[®] FS self-levelling filler is recommended outdoors.</p> |
| Properties | <p>Sopro HF-S 563 is a heavy-duty, self-levelling, rapid-set, cementitious floor-levelling compound with extremely high compressive strength, flexural tensile strength and abrasion resistance. Compressive strength after 28 days exceeding 45 N/mm², flexural tensile strength after 28 days exceeding 11 N/mm², abrasion resistance (Böhme test) A12. Sopro HF-S 563 is low-chromate and can be machine applied. Excellent workability and hardened mortar properties thanks to Sopro Mikrodur[®] technology.</p> |
| substrate preparation | <p>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). Patch holes, chips and spalls with Sopro RS 462 repair filler. Fill any existing cracks in screed, e.g. with structurally bonding Sopro GH 564 casting resin or Sopro SH 649 shaken resin. Cement screeds shall be 28 days old and dry. Screeds incorporating Sopro Rapidur[®] B1 binder are ready to receive tiles after only approx. 6 - 12 hours. Unheated calcium sulphate screeds shall exhibit a moisture content $\leq 0.5\%$ CM and be adequately ground, vacuum-cleaned and primed. Prior to installation, screeds incorporating heating elements shall be heated up and allowed to cool in accordance with relevant procedures and standards, and shall exhibit following moisture content: - cement screeds $\leq 2.0\%$ CM - calcium sulphate screeds $\leq 0.3\%$ CM 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. Use of Sopro FSH 561 hybrid self-levelling filler is recommended for calcium sulphate and mastic asphalt screeds. Assessment of substrate shall comply with relevant standards and regulations. Pull-off strength of substrate shall average at least 1.5 N/mm² and shall be no less than 1.0 N/mm² at any location. Concrete surfaces shall be prepared by sand or shot blasting. Any risk of rising damp from ground shall be eliminated. Where necessary, apply two coats of Sopro ESG 868 epoxy primer-sealer to substrate.</p> |
| Priming | <p>Sopro EPG 1522 epoxy primer/Sopro BH 869 construction resin blinded with Sopro QS 511 coarse silica sand: All mineral, high- or variable-suction substrates, e.g. cement screeds and concrete surfaces (min. 3 months old). Use subject to subsequent installation of covering: Sopro GD 749 primer: All mineral, high- or variable-suction substrates, e.g. cement screeds and concrete surfaces (min. 3 months old). Sopro GD 749 primer shall be applied in undiluted form. Sopro HPS 673 bonding primer: All smooth, non-absorbent substrates, e.g. existing tile and terrazzo coverings or firmly adhering adhesive residue. Sopro EPG 1522 epoxy primer/Sopro MGR 637 multi-purpose primer: Moisture-sensitive substrates, e.g. calcium sulphate screeds (CA and CAF). Sopro HE 449 bonding emulsion: Cement screeds, concrete surfaces (min. 3 months old), existing ceramic, terrazzo, natural and cast stone coverings, existing firmly adhering screed coatings. Wet-on-wet application after flash-off time of 10 - 15 minutes (max. 30 minutes). No liquid Sopro HE 449 shall remain on surface. Any dried films shall be removed.</p> |
| Application | <p>Fill clean mixing container with specified water quantity, add Sopro HF-S 563 and mix mechanically to homogeneous, lump-free consistency. Pour mixed compound onto prepared substrate and spread uniformly using squeegee or finishing trowel. If</p> |

required, use spiked roller or screeding rod to release air. For application to larger areas, Sopro HF-S 563 may also be placed using pumping equipment. Wherever possible, levelling compound shall be applied to required thickness in a single coat. If, in specific cases, application in several coats proves necessary, each coat shall be given adequate time to achieve walkability and Sopro EPG 1522 epoxy primer/Sopro BH 869 construction resin blinded with Sopro QS 511 coarse silica sand applied. Allow to set prior to application of next coat. Prevent action of high temperatures, draughts and strong sunshine on freshly applied filler coat to ensure optimum curing and minimize risk of cracking. Where subject to heavy loads, e.g. from fork-lift trucks, Sopro HF-S 563 shall always be applied to a minimum thickness of 8 mm. Where applied as finished floor surface in areas subject to chemical loads, Sopro HF-S 563 shall be sealed using SoproDur® HF-L 513 high-strength epoxy protective coat (where necessary, blinded with Sopro QS 511 coarse silica sand). Surfaces exposed to oil or petrol shall be protected by a suitable coating (Sopro ÖS oil barrier).

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| Water requirement | Per package | 25 kg |
| | Self-levelling filler | 4.5 l - 5 l |
| Application temperature | From +5 °C to max. +25 °C (substrate, air, material) | |
| Castor chair resistance | Suitable (for castors to DIN EN 12529) upwards of min. 4 mm coat thickness | |
| Coat thickness | 4 – 40 mm; for thickness upwards of 10 mm, may be extended by up to 1/3 of prepared compound volume using 0 – 4 mm or 0 – 8 mm graded silica sand. | |
| Floor heating | Suitable | |
| 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) | |
| Notes on surface appearance | Sopro HF-S 563 high-strength floor-levelling compound is not subject to any factory colour control. Use of Sopro DFS ambiente® self-levelling designer floor topping is recommended for creation of visually appealing surfaces with factory-pigmented material. When used to produce finished floor surfaces, Sopro HF-S 563 high-strength floor-levelling compound delivers a floor covering unique in character and form that 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. Prior to contract award, adequately sized sample areas should be installed by relevant tradespersons and finished with preferred surface protection product. | |
| Ready to receive floor covering | Ready to receive ceramics and cast stone after 2 - 3 hours; natural stone after 24 hours. For elastic, textile, laminate, parquet and wood block floor coverings, maximum permissible moisture content ($\leq 1.8\%$ CM) shall be confirmed by CM measurement over full screed cross-section prior to flooring installation. Empirical values for achievement of this – in function of filler coat thickness, subject to application to dry substrate – are as follows: Up to 4 mm coat thickness: after approx. 1 day 4 – 10 mm coat thickness: after approx. 3 – 4 days 10 – 40 mm coat thickness: after approx. 5 – 9 days | |
| 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 screeds, concrete surfaces (min. 3 months old), existing ceramic and terrazzo coverings, heated floor constructions, calcium sulphate screeds. | |
| Tool cleaning | Wash tools with water immediately after use | |
| Tools | Mixing attachment, squeegee, finishing trowel, mixing pump, spiked roller, screeding rod. | |

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| Walkable | After approx. 2 hours |
| abrasion resistance | From min. 8 mm coat thickness, able to accommodate loads from lift stackers; suitable for pneumatic- and solid-rubber-tyred vehicles (industrial trucks); abrasion resistance (Böhme test) A12 |
| strength class | CT-C45-F11-A12 |
| surface treatment | For direct use as a finished floor, surfaces produced with Sopro HF-S 563 high-strength floor-levelling compound can be impregnated or sealed with suitable products (e.g. SoproDur® HF-L 513 high-strength epoxy protective coat) to protect against soiling and to achieve specific surface strengths or slip resistances. |
| 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 | <p>Labelling in accordance with Regulation (EC) No 1272/2008 (CLP). GHS05</p> <p>Signal word: Danger</p> <p>H318 Causes serious eye damage.</p> <p>P102 Keep out of reach of children. P103 Read carefully and follow all instructions.</p> <p>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 or doctor P501 Dispose of contents/container in accordance with regulations.</p> <p>Contains: Portland cement, Cr (VI) < 2 ppm.</p> <p>Low-chromate to Regulation (EC) No 1907/2006, Annex XVII</p> <p>GISCODE ZP1</p> |

Disposal Considerations

Waste treatment methods: 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.

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