



Technical Data Sheet

SOLOPLAN®

article no. 2 01353

Liquid levelling compound up to 20 mm

CE	
SCHOMBURG GmbH & Co. KG Aquafinstraße 2-8 D-32760 Detmold 18 2 01353	
EN 13813 SOLOPLAN Cement-based screed mortar for indoor application	
CT-C25-F6	
Reaction to fire	Class E
Release of corrosive substances	CT
Compressive strength	C25
Flexural strength	F6



- Polymer modified
- Self-levelling
- Very low emission
- For interior
- Easy to process
- Rapid setting
- Suitable for heated screeds
- Pumpable
- For layer thicknesses of 2-20 mm

Areas of use:

SOLOPLAN is used in a layer thickness of 2-20 mm for smoothing, filling, repairing and levelling. Suitable substrates include concrete substrates that are as per DIN 1045, heated and unheated cement-based screeds that are as per DIN 18560, old and adherent tile finishes and rapid-setting cement-based screeds (e.g. ASO-EZ6-PLUS). SOLOPLAN is suitable for surfaces exposed to dampness if a suitable SCHOMBURG compound seal is applied at a subsequent stage. Not suitable to be used as a wearing surface without an additional coating that is meant for that purpose! SOLOPLAN is suitable for use in interior spaces according to the French VOC regulation. Very low emissions in accordance with GEV-EMICODE, which normally results in positive evaluations within the scope of building certification systems in accordance with DGNB, LEED, BREEAM, HQE. Maximum quality level 4, line 8 in

accordance with DGNB criteria "ENV 1.2 Risks to the local environment".

Technical data:

Basis:	Cement, aggregate, additives
Colour:	grey
Bulk density:	ca. 1.3 kg/dm ³
Application temp.:	+5°C to +25°C
Pot life* ¹⁾ :	30 minutes
Foot traffic* ¹⁾ :	after approx. 3 hours
Compressive strength* ¹⁾ :	≥ 25 N/mm ² after 28 days
Flexural strength* ¹⁾ :	≥ 6 N/mm ² after 28 days
Classification:	EN 13813 CT-C25-F6
Reaction to fire:	E
Cleaning:	When fresh, with water
Consumption:	ca. 1.65 kg/m ² /mm layer
thickness	
Storage:	dry, 6 months in the original unopened container, promptly use opened container
Packaging:	25 kg foil sack

*¹⁾ The values are applicable for +23°C and a relative humidity of 50%; higher and lower temperatures speed up and slow down the hardening process, respectively.

Substrate:

The substrate must be dry, load-bearing, firm, grippy and free of substances that act as a separating layer. The substrate must correspond to the payloads associated with the load-bearing capacities that are in accordance with DIN 1055. Suitable measures (like blasting or milling) should be implemented to mechanically remove separating layers, laitance layers and the like. When it comes to cement-based screeds on the separating or insulating layer, the CM device should be used to check the readiness for laying before SOLOPLAN is applied, in order to avoid further deformations of the screed plate due to shrinkage processes. The temperature of the air, material and substrate may not fall short of +5°C during

SOLOPLAN

application, and during the following week. When it comes to a cement-based screed on a separating layer or insulation, the carbide method moisture content may not exceed 2.0 CM%. The CM measurement must be completed in accordance with the current working instructions FBH-AD from the technical information "Interface coordination with heated floor constructions".

1. Prime the available substrate as per the primer table, and apply SOLOPLAN after the drying phase has been completed. We recommend that the primer that has been used be allowed to form a film/dry/react completely, since doing so diminishes the absorption behaviour of the substrate, which in turn ensures that the flow behaviour of SOLOPLAN is retained.

Priming table	
	For layer thicknesses ≤ 20 mm
Concrete	ASO-Unigrund
Cement-based screed, cement-based fast-setting screed	ASO-Unigrund
Smooth, worn-down, cement-bound substrates, terrazzo	ASODUR-GBM + sprinkle or ASODUR-SG2 + sprinkle
stationary ceramic coverings	ASO-Unigrund-S (pure) or ASODUR-SG2 + sprinkle
When it comes to the use of epoxy resin primers, an abundant quantity of quartz sand with a grain size of 0.5–1.0 mm should be sprinkled on the still-fresh layer in a technically correct manner. After the reaction has taken place, meticulously remove the unbound quartz sand!	

2. Take 5.6–6.0 l of water (depending on the desired consistency), intersperse 25 kg of SOLOPLAN and mix until a lump-free and free-flowing mass is formed. In the meantime, scrape along the walls of the mixing vessel with a trowel, in order to bring adherent and unmixed material into the mixing process. Then mix again. The use of a stirrer with ca. 500–700 min⁻¹ is recommended, in conjunction with the use of Collomix stirrer type KR140 to 160.

Mixing ratio: 25 kg of SOLOPLAN : 5.6–6.0 l of water

3. Pour SOLOPLAN onto the primed substrate, and use a suitable tool (surface rake, long-handled rake) to distribute it evenly during the pot life. It has been observed that it is beneficial to set level points, so that it will be possible to check the desired height level while the mixture is still fresh. The relevant layer thickness should be realised in a single application step. De-aerate the fluid layer with a spiked roller (or another suitable tool) and induce it to flow; doing so decisively improves the surface and the flow.

4. The setting SOLOPLAN should be protected against rapid water removal (e.g. due to a high room temperature), direct solar radiation and draughts! Ideally, any potential skimming operation involving the use of SOLOPLAN should be carried out when the first layer is walkable, but still visibly damp (this can be discerned on the basis of the darker colour). If the first layer is dry, an intermediate priming operation involving the use of ASO-Unigrund needs to be carried out.

5. SOLOPLAN is walkable with tiles and boards after ca. 4^{*T1} hours. When it comes to other surface coverings, the CM device needs to be used to check the residual moisture (refer to the following instructions). The maximum permissible residual moisture contents should be complied with in accordance with the latest data sheets. Also refer to the following instructions!

Important instructions:

- ASO-Unigrund-K (diluted with water - 1:3) can also be used instead of ASO-Unigrund-GE!
- In order to reliably avoid pore formation, work ASO-Unigrund-GE/-K/-S into the substrate in a meticulous manner and allow thorough through-drying. Use a spiked roller to de-aerate the still-fluid SOLOPLAN layer!
- Excessively rapid water removal (heated spaces or strongly-absorptive substrates) leads to a risk of crack formation! The fresh equalising layer should be protected against excessively rapid drying. If possible,

SOLOPLAN

it should be covered with tiles in 28 days. If this cannot be done in this period of time, suitable measures (e.g. the use of a protective film) should be implemented to protect SOLOPLAN against excessively rapid drying or deposits.

- The installation location needs to be aerated. However, draughts and direct solar radiation should be avoided during application and the hardening process. The room and floor temperatures must be at the minimum level of +5 °C during application, and during the following week! Air dehumidifiers may not be used during the first 3 days!
- The condition of the substrate is essential to the success of floor levelling. Porous substrates negatively alter the flow behaviour of the smoothing compound, therefore carefully prepare the substrate: clean and prime.
- Sulphite waste lye adhesives should be totally removed! Minor quantities of dispersion-based and water-soluble floor covering adhesives (surface portion < 25%/m²) can remain on the substrate. Clean the substrate, prime with ASODUR-SG2 and blind with 0.5-1.0 mm grain quartz sand. Moisture pressure from the substrate and the surface must be ruled out. If this cannot be done, the adhesive residues should be completely removed! SOLOPLAN is then used for levelling until a maximum layer thickness of 15 mm has been reached.
- Extensively remove old, water resistant flooring adhesives mechanically, clean, prime with ASODUR-GBM or ASODUR-SG2 and blind with 0.5-1.0 mm grain quartz sand.
- SOLOPLAN is then used for levelling until a maximum layer thickness of 15 mm has been reached.
- Moisture measurement should be carried out with the CM device to assess the readiness for laying (involving the following coverings). The following limit values should be complied with:
- When it comes to calcium sulphate screeds, the carbide method moisture content may not, at the time of levelling with SOLOPLAN, exceed 0.5% in the absence of a floor heating system, or 0.3% in the presence of a floor heating system. **Den Calciumsulfatestrich mit ASODUR-GBM grundieren und mit Quarzsand der Körnung 0,5-1,0 mm abstreuen. Anschließend den ungebundenen Quarzsand gründlich entfernen, danach erfolgt das Nivellieren mit SOLOPLAN bis zu einer Schichtdicke von maximal 10 mm.** The following moisture migration should be avoided. We recommend that ASO-NM15 be used to level calcium-sulphate-binded substrates, e.g. calcium sulphate screeds.
- Direct contact between cement mortar and magnesite screeds leads to the destruction of the magnesite screeds through a chemical reaction known as "magnesite pouring". Moisture pressure from the rear of the substrate must be prevented through appropriate measures. The magnesite substrate should be mechanically roughened and primed with the epoxy resin ASODUR-V360W plus max. 5% water (approx. 250 g/m²). After a waiting time of approx. 12 to 24 hours at +20 °C, the second coat of ASODUR-V360W should be applied (approx. 300-350 g/m²). While

Maximum moisture content of the levelling compound, determined with the CM device (refer to the following instructions)			
Top layer		heated	unheated
Parquet	floating installation	1.8 %	2.0 %
Laminate floor	floating installation	1.8 %	2.0 %
Ceramic tiles or natural/artificial stone	Thick layer	2.0 %	2.0 %
	Thin-bed	2.0 %	2.0 %
The CM measurement must be completed in accordance with the current working instructions FBH-AD from the technical information "Interface coordination with heated floor constructions".			

SOLOPLAN

the second coat is still fresh, apply plenty of quartz sand with a grain size of 0.2-0.7 mm. After another waiting time of ca. 12-16 hours, SOLOPLAN is used for levelling until a maximum layer thickness of 20 mm has been reached.

- Observe water addition!
Too high a water addition leads to the appearance of separation with low strength surfaces. Such low-strength layers should be removed mechanically!
- If a mixing pump (e.g. PFT G4 or G5 or the like) is used, the mixing pump and hoses must be rinsed in case of interruptions of work!
- When using a PFT G4/G5 mixing pump, use the standard PFT G4 mixing screw, the D 6-3 rotor and the D 6-3 stator twister, and set the water flow meter to ca. 360-400 l/h. The flow rate would then be ca. 20 l/min. In case of larger layer thicknesses, we would recommend using the pump unit, the R7-2.5 rotor and the R7-2.5 stator; in such a case, the water flow meter should be set to ca. 860 l/h. The flow rate would then be ca. 40 l/min. The PFT consistency test socket can be used to check and set the correct water addition level on the basis of the slump. It should not exceed the level of 66 cm on a prepared substrate, and it should be monitored continuously during application!
- Border, field, building separation and movement joints should be carried over to or installed at the designated location; suitable means (e.g. RD-SK50 edge strips) should be used to detach them. Crack control joints should be cut in after the SOLOPLAN has hardened to the level of up to a third of the introduced layer thickness.
- We recommend that ASO-NM15 be used (up to a layer thickness of 10 mm) for levelling mastic asphalt screeds belonging to the hardness class of IC10.
- Preliminary work (e.g. the levelling of transitions and the equalising of damaged areas and surface irregularities) is done using the firm ASOCRET-M30, SOLOCRET-15 or SOLOCRET-50 repair mortar.
- A large-pored substrate necessitates a larger amount of material.

- High temperatures speed up the hardening process, while low temperatures slow it down.
- The current relevant regulations are to be observed! So, for example:
DIN 18157, DIN 18352, DIN 18560, DIN 18534
DIN EN 13813, DIN 1055.
The BEB data sheets issued by Bundesverband Estrich und Belag e.V.
The expert information "Interface coordination for heated floor constructions" The ZDB data sheets issued by the professional association of the German tile industry:
[* 1] "Bonded waterproof systems"
[* 3] "Movement joints in cladding and coverings made of tiles and boards"
[* 5] "Ceramic tiles and boards, natural stone and artificial stone on cement-based floor constructions with insulating layers"
[* 6] "Ceramic tiles and boards, natural stone and artificial stone on heated and cement-based floor constructions"
[* 7] "Outer coverings"
[* 9] "Height differences"
[* 10] "Tolerances"
[* 11] "Cleaning, protecting, maintaining"
[* 12] "Swimming pool construction"
TKB data sheet: "Technical description and application of cement-based floor body fillers"
- Only use clean tools and clean water!
- The technical data sheets of the aforementioned products should be borne in mind!

Please observe valid EU safety data sheets!

GIS CODE: ZP1

