

SOLOPLAN®-30

SELF LEVELLING UNDERLAYMENT UPTO 30 MM

Product Description:

- Polymer modified.
- Self-levelling.
- Waterproof.
- Low emission.
- For exterior and interior use.
- Easy to process.
- For curing.
- Suitable for heated screeds.
- Pumpable.
- For layers 3-30mm thick
- Meet class RWFC-550 to DIN EN 13892-7.

Areas of Application:

SOLOPLAN®-30 is used for smothering and levelling in layers 3 - 30mm thick. Suitable surfaces are floors made of concrete in accordance with Herman Industrial Standard DIN 1045, heated and unheated cement screeds according to DIN 18560, old hardened tile surfaces and rapid hardening cement screeds (for example asASODUR-EZ6 Plus). SOLOPLAN®-30 is suitable for exterior areas and areas subject to moisture loads, provided a suitable AQUAFIN Pakistan compound waterproofing sealant has been applied in advance. Other than the already planned surface, it is not suitable as a wearing surface without additional coating!

Technical Properties:

Base : cement aggregates, additives.
Colour : grey.

Bulk density	: 1.4 kg/dm ³
Application and surface temperature	: +5°C up to +25°C.
Pot life*)	: 30 minutes.
Traversable*)	: after approx. 4 hours
Compressive strength*)	: approx. 14 n/mm ² after 24 hours. approx. 28 n/mm ² after 7 days. approx. 38 n/mm ² after 28 days.
Tensile strength in bending	: approx. 2.8 n/mm ² after 24 hours. approx. 7.5 n/mm ² after 7 days. approx. 8.0 n/mm ² after 28 days.
Classification	: EB 13813 CT-C30-F7 Fire behaviour.
Rating	: A2
Cleaning	: in fresh condition with water.
Consumption	: approx. 1.65 kg/m ² /mm layer thickness.
Storage	: dry, 6 months in originally closed packs opened packs are to be sealed and be used up as soon as possible.
Packaging	: 25 kg-bags with PE-liner.

*) The values stated are applicable with ambient temperatures of +23°C and at 50% relative air humidity. Higher temperatures shorten the processing time, whilst lower temperatures extend the processing times.



Surface and Product Preparation:

The surface is to be dry, of load-bearing capacity, hardened, skid-proof and free from substances acting as separating agents. The surface has to meet the load-carrying capacity requirements as specified in DIN 1055. Separating and sintering layers have to be removed by suitable measures such as blasting or milling. Cement screeds on separating or insulating layers the coating maturity is to be measured using the CM-device prior to the application of SOLOPLAN®-30, this avoids further deforming of the screed plate caused by shrinking. The temperature of air and ground surface must not fall below +5°C during and one week after application.

1. For layers less than or the same as 20 mm thick, concrete and cement screeds are to be primed with ASO®-Universal Primer-GE, SOLOPLAN®-30 is applied as soon as the primer has dried. We recommend allowing the primer coat to completely dry out (approx. 6-12 hours =) as the absorption capacity of the surface is minimized and the flow behaviour of SOLOPLAN®-30 IS MAINTAINED. For layers, 20 mm thick or higher, smooth worn surfaces have to be primed with ASODUR-GBM and sprinkled with excess amounts of Quartz sand (grain size 0.5 – 1.0 mm). Prior to the application of SOLOPLAN®-30 and after complete hardening (approx. 16 hours), the surplus quartz sand can then be removed.
2. 4.7 – 5.41 l of water is to be filled into the mixing vessel. Add 25 kg of SOLOPLAN®-30 mixing until a knot-free, flowable mass is achieved. During mixing a trowel should be used to scrape off the mixture sticking on the inside of the mixing vessel., so that the surplus material is re-mixed ensuring correct processing of the mixed ratio. It is recommended to use a mixer at approx. 500 -

700 min. 1. Mixing ratios: For layers less than or the same as 20 mm thick, We recommend 5.0 – 5.4 l of water to 25 kg of SOLOPLAN®-30. For layers of 20 mm and higher, we recommend 4.7 - 5.11 water to 25 kg of SOLOPLAN®-30. A minimum addition of water i.e.: less excess water in the mixture allows a quicker surface maturity to be achieved.

3. SOLOPLAN®-30 is poured onto the primed surface and spread evenly with a suitable tool (surface blade etc.) within the handling time given. It is proved to be quite advantageous by setting level pointers during the green state of the surface to control the exact height of the levels required. The required layer thickness should be applied in one working coat. The wet layer is to be aerated with a toothed roller (or another suitable tool), activating the flowing movement. The surface and flowing are substantially improved by this method.
4. SOLOPLAN®-30 under curing is to be protected against quick water withdrawal caused by high room temperatures, direct sun influence or draught air! If a recoating of SOLOPLAN®-30 is required then this should be carried out when the first layer becomes traversable but has still a slightly moist texture noticeable by its dark colouration. If the first layer has already dried out, intermediate priming with ASO®-Universal Primer-GE is essential.
5. SOLOPLAN®-30 applied in layers of less than or the same as 20 mm thick can be affixed with tiles and plates (after the hardening time of approx. 16 hours*). For other covering or layers of strengths of 20 mm or more, the residue moisture has to be determined using a CM device. The maximum tolerated values for residual moisture, according to the valid data sheets by maintained. See important notes as follows:

Priming Table		
	For layer thickness ≤ 20 mm	For layer thickness > 20 mm
Concrete with quartz sand	ASO®-Unigrund-GE	ASODUR-GBM + broadcast
Cement screed with quartz sand, Cement quick screeds	ASO®-Unigrund-GE	ASODUR-GBM + broadcast
Smooth worn,	ASODUR-GBM + broadcast or	ASODUR-GBM + broadcast or
Cement bond surfaces	ASODUR-GBM + broadcast	ASODUR-SG2 + broadcast
Fixed ceramic layers, terrazzo	ASODUR-GBM + broadcast	ASODUR-SG2 + broadcast

Important Advice:

- ASO-UNGRUND-K (1:3 diluted with water) or MG-17 can be used instead of ASO®-Universal Primer-GE.
- In order to exclude pore formation ASO®-Universal Primer-GE is to be brushed into the surface thoroughly and should dry out completely (within approx. 6 – 12 hours *1). The still wet SOLOPLAN®-30 layer is to be de-aerated with a toothed roller!
- If rapid water vapour withdrawal has occurred (in heated rooms or strongly absorbing surfaces) the surface layer may suffer the danger of cracking!
- Ventilation around the work area is necessary, drafts and excessive sun rays during the hardening process are to be avoided. The inner and floor temperature must be maintained at +5°C during and also 1 week after work. Air dehumidifiers must not be used within the first three days.
- The condition of the surface underneath is essential for the success of the floor spackling. Absorbing surfaces influence the flow capacity of the spackling compound negatively; therefore, the surface is to be pre-treated thoroughly: it is to be cleaned and primed!
- It is possible to have inclined surfacing done up to 2%, however, in this case, the water addition has to be reduced to 4.25-4.5 l to 25 kg of SOLOPLAN®-30.
- Older already hardened, fixed ceramic layers are to be cleaned, ground, primed with ASODUR-SG2, and spread over with excessive amounts of Quartz sand (grain size 0.5- 1.0

mm). After the total reaction, the surplus quartz sand has to be removed.

- Sulphate lye adhesive is to be removed!
- Only very small quantities of water-soluble flooring adhesives on a dispersion basis (surface part <25%/m²) may remain on the surface. The surface is to be cleaned, primed with ASODUR-SG2, spread over with excessive amounts of quartz sand (grain size 0.5- 1.0 mm) and is to be exhausted after a complete reaction. Followed by levelling off with SOLOPLAN®-30 up to a maximum layer thickness of 10 mm. A moisture layer from the surface underneath and the top has to be excluded, otherwise, the adhesive residues have to be removed completely.

Total screed moisture, given by the humidity measuring device (CM-device):

- Old waterproof adhesives have to be removed mechanically as much as possible, cleaned, primed with ASODUR-GBM or ASODUR-SG2, spread over with excessive amounts of quartz sand (grain size 0.5 – 1.0 mm) and after complete reaction be vacuumed! Alternatively, the prime coat can be made of undiluted MG-17. Followed by levelling off with SOLOPLAN®-30 up to a maximum layer thickness of 10 mm.
- In order to evaluate the grade of maturity for covering the moisture has to be measure by means of a CM-device. The following values are to be kept (see table). In case of anhydrite screeds the Cm-moisture at the time application of SOLOPLAN®-30 must not exceed 0.5% without floor heating and 0.3% with floor heating Prime with ASO®-Universal Primer-G:



Upper Flooring		Heated	Unheated
Water Permeable Surface Density		1.8%	2.0%
Textiled Surface	Water Vapour Seal Water Vapour permeability	1.8% 2.0%	2.5% 3.0%
Parquet	Floating layed	1.8%	2.0%
Laminate flooring	Floating layed	1.8%	2.0%
Ceramic tiles and/or Natural stone/Cast stone	Thich bed Thin bed	2.0% 2.0%	2.0% 2.0%

and allow complete drying out. After waiting a further 12 to 16 hours the levelling off using SOLOPLAN®-30 up to a maximum layer thickness of 1 mm can be carried out.

- Posterior moisture effects have to be excluded. For the levelling of calcium sulfate bond surfaces such as anhydrite, we recommend the use of ASO-NM 15. Direct contact of cementitious mortar and magnesite screeds leads to the destruction of the magnesite screed by means of a chemical reaction resulting in expansion tendency due to magnesia. Moisture from the negative side of the surface underneath has to be excluded by means of the corresponding measures. The magnesite surface is to be roughened mechanically and be primed with epoxy resin ASODUR-D2 and an addition of max. 5% water (approx. 250-350 g/m²). The fresh second layer is to be spread over with an excessive amount of quartz sand (grain 0.2 0.7 mm). After an additional waiting time of approx., 12 to 16 hours levelling off with SOLOPLAN®-30 up to a maximum layer thickness of 15 mm can be carried out.
- Important! Regarding the amount of water addition! If too much water is added, the mixture tends to segregate combined with surfaces with reduced strength capacity. Such as surfaces with reduced strength should be removed mechanically.
- When using a mixing pump, for example PFT G4 or G5 or similar, especially when work is stopped, both the pump and the tubes must be cleaned.
- When using a mixing pump, for example, PFT G4, also the standard mixer PFT G4, the rotor D6-3 and the stator twister D6-3 the water flow meter is to be set at 350-400 l/h. The correct ware addition can be checked by means of the PFT consistency check according to the unit measure of the slump. This must not exceed 60 cm on the prepared surface and should be checked several times during application.
- Borders, edge joints, expansion and construction joints are to be placed accordingly. To be placed correctly on the already planned are and separated by suitable means such as trimmings! As soon as SOLOPLAN®-30 has hardened, dummy joints have to be cut up to a third of the applied layer of thickness.
- For levelling of mastic asphalt screeds of quality IC 10 (GE10) and IC 15 (GE15), we recommend the use of ASO-NM15 up to a layer of thickness of 10 mm!
- Preparations such as the levelling off the transitions, excavations and uneven areas are to be applied with a stable repair mortar ASOCRET-RN!
- Coarsely porous surfaces cause increased material demand. Higher temperatures minimize and lower temperatures extend the curing procedure. The up-to-date, active rules and regulations are to be adhered to: BEB-Info Sheets (Bundesverband Estrich und Belag e.V. German Federal Association for screed and surface laying) including technical information interface coordination for heated flooring constructions.

German Industrial Standards Such As:

Other technical literature currently handed out by the German Federal tiling Industry, such as:

1. "References on sealants in connection with ceramic tiling and slabs for interior and exterior use" (August 2000).
2. "Settlement joints on surfaces covered with tiles and concrete tiling".
3. See 1.
4. "Ceramic Tiles and slabs, Natural Stone and cast stone on concreted surfaces, floor constructions with layers of insulation".
5. Ceramic Tiles and slabs, Natural Stone and cast stone on heated concrete floor constructions".
6. "Surface constructions covered with tiles and slabs for outdoor Building surroundings"

Please regard the valid EC-data sheet! EMIODE EC1: very low emission.

GISCODE: ZP1