

# SOLOPLAN®-30

## Self leveling underlayment up to 30 mm

### Properties:

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

### Areas of application:

SOLOPLAN-30 is used for smoothening and leveling in layers of 3-30 mm thick. Suitable surfaces are floors made of concrete in accordance to German Industrial Standard DIN 1045, heated and unheated cement screeds according to DIN 18560, old hardened tile surfaces and rapid hardening cement screeds (for example ASODUR-EZ6 Plus). SOLOPLAN-30 is suitable for exterior areas and areas subject to moisture loads, provided a suitable SCHOMBURG 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 Data

Basis:	Cement, aggregates, additives
Colour:	grey
Bulk density	1.4 kg/dm <sup>3</sup>
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 <sup>2</sup> after 24 hours Approx. 28 N/mm <sup>2</sup> after 7 days Approx. 38 N/mm <sup>2</sup> after 28 days
Tensile strength in bending	Approx. 2.8 N/mm <sup>2</sup> after 24 hours Approx. 7.5 N/mm <sup>2</sup> after 7 days Approx. 8.0 N/mm <sup>2</sup> after 28 days
Classification:	EN 138 13 CT-C30-F7

Fire behaviour rating:	A2
Cleaning:	In fresh condition with water
Consumption:	Approx. 1.65 kg/m <sup>2</sup> /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 50% relative air humidity. Higher temperatures shorten the processing time, whilst lower temperatures extend the processing time.

### Surface and product Preparation:

The surface is to be dry, of load bearing capacity, hardened, be skid-proof and be 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 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 to allow 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 excessive amounts of quartz sand (grain size 0.5-1.0mm). Prior to the application of SOLOPLAN-30 and after complete hardening (approx. 16 hrs), the surplus quartz sand can then be removed.
2. 4.7-5.4 l of water is to be filled into the mixing vessel. Adding 25 kg of SOLOPLAN-30 mixing until a knotfree, 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 a correct processing of the mixed ratio. It is recommended to use a mixer at approx. 500-700 Min. -1  
Mix 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 20mm and higher, we recommend 4.7-5.1 l of water to 25 kg of SOLOPLAN-30.

With a minimum addition of water ie: 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 de-aerated with a toothed roller (or other suitable tool), activating the flowing movement. The surface and flowing is 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 hardening time of approx. 16 hrs\*). For other coverings or layer strengths of 20 mm or more, the residue moisture has to be determined by means of a CM-device. The maximum tolerated values for residual moisture, according to the valid data sheets must be maintained. See important notes as follows:

Important advice:

- ASO-UNIGRUND-K (1:3 diluted with water) or MG-17 can be used instead of ASO-Unigrund-GE.
- In order to exclude a pore formation ASO-Universal Primer-GE us 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 working. Air dehumidifiers must not be used within the first three days.
- The condition of the surface underneath is essential for the success of floor spactling. Absorbing surfaces influence the flow capacity of the spactling compound negatively, therefore, the surface is to be pretreated thoroughly: it is to be cleaned and primed.
- It is possible to have inclined surfacings done up to 2%, however, in this case the water addition has to be reduced to 4.25-4.5 l to 25kg of SOLOPLAN-30.
- Older already hardened, fixed ceramic layers are to be cleaned, grinded, primed with ASODUR-SG2, spread over with excessive amounts of quartz sand (grain size 0.5-1.0 mm). After total reaction the surplus quartz sand has to be removed.
- Sulphite lye adhesive is to be totally removed.
- Only very small quantities of water soluble flooring adhesives on dispersion basis (surface part <25%/m<sup>2</sup>) 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 complete reaction. Followed by leveling off with SOLOPLAN-30 up to a maximum layer thickness of 10 mm. A moisture load from the surface underneath and from the top has to be excluded, otherwise the adhesive residues have to be removed completely.

**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 screed	ASO-Unigrund-GE	ASODUR-GBM + broadcast
Smooth worn	ASODUR-GBM + broadcast or	ASODUR-GBN + broadcast or
Cement bond surfaces	ASODUR-SG2 + broadcast	ASODUR-SG2 + broadcast
Fixed ceramic layers, terrazzo	ASODUR-SG2 + broadcast	ASODUR-SG2 + broadcast

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 0.5-1.0mm) and after complete reaction be vacuumed. Alternatively the prime coat can be made of undiluted MG-17. Followed by leveling 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 measured 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 of application of SOLOPLAN-30 must not exceed 0.5% without floor heating and 0.3% with floor heating. Prime with ASO-Universal Primer-GE and allow complete drying out. After waiting a further



12 to 16 hours the leveling off using SOLOPLAN-30 up to a maximum layer thickness of 10 mm can be carried out.

- Posterior moisture effects have to be excluded. For the leveling of calcium sulfate bond surfaces such as anhydrite we recommend the use of ASO-NM15. Direct contact of cementitious mortar and magnesite screed leads to 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 corresponding measures. The magnesite surface is to be roughened mechanically and to be primed with the epoxy resin ASODUR-D2 and an addition of max. 5% water (approx. 250 g/m<sup>2</sup>). After a waiting time of approx. 12 hours up to 24 hours at +20°C the second layer of ASODUR-D2 is to be applied (approx. 300-350 g/m<sup>2</sup>). The fresh second layer is to be spread over with an excessive amount of quartz sand (grain size 0.2-0.7 mm). After an additional waiting time of approx. 12 to 16 hours leveling off with SOLOPLAN-30 up to a maximum layer thickness of 15 mm can be carried out.
- Important! regard the amount of water addition! If too much water is added, the mixture tends to segregate combined with surfaces of reduced strength capacity. Such 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 PFT G4, also the standard mixer PFT G4, the rotor D 6-3 and the stator twister D 6-3 the water flow meter is to be set at 350-400 l/h. The correct water addition can be checked by means of the PFT consistency check according to the unit measure of slump. This must not exceed 60cm 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 area and separated by

suitable means such as trimmings. As soon as SOLOPLAN-30 has hardened, dummy joints have to be cut into a third of the applied layer thickness.

- For leveling of mastic asphalt screeds of quality IC10 (GE10) and IC 15 (GE15), we recommend the use of ASO-NM15 up to a layer thickness of 10 mm.
- Preparations such as the leveling off of transitions, excavations and uneven areas is to be applied with a stable repair of mortar ASOCRET-RN.
- Coarsely porous surfaces cause increased material demand. Higher temperatures minimizes and lower temperatures extends 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. "Ceramic Tiles and slabs, Natural Stone and cast stone on concreted surfaces, floor constructions with layers of insulation"
4. "Ceramic tiles and slabs, natural stone and cast stone on heated concrete floor constructions"
5. "Surface constructions covered with tiles and slabs for outdoor building surroundings"

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

GISCODE: ZP1

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	Thick bed	2.0%	2.0%
	Thin bed	2.0%	2.0%

**Equus Industries Ltd**  
PO Box 601  
Blenheim  
Phone: 03 578 0214 Fax 03 578 0919  
Email: admin@equus.co.nz  
Web: www.equus.co.nz