

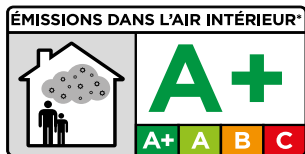
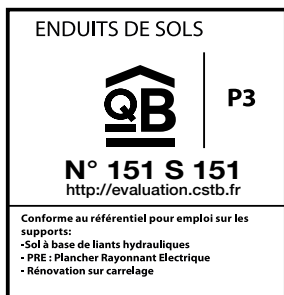


# MULTIPLAN-30

Self-levelling underlayment up to 30 mm

- Water resistant, for interior and exterior
- Fast curing, traversable after 4 hours
- Polymer modified
- Suitable for heated screeds
- Easy to process
- Pumpable
- For layers 1 - 30 mm thick
- Meets class RWFC-550 according to DIN EN 13892-7
- EC1: very low emission
- **CE**

*NEW FORMULA, MORE FLUID , LONG LASTING*



TECHNICAL ASSISTANCE



INSURANCE GUARANTEE



TECHNICAL MEETINGS



PROFESSIONAL USE

## AREAS OF APPLICATION:

MULTIPLAN-30 is used for smoothing and levelling in layers of 1-30 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 SOLIDONE PRONTO). MULTIPLAN-30 is suitable for exterior areas and areas subject to moisture loads, provided a suitable BENFER 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.

## CONTRACT ITEM SPECIFICATIONS:

The cementitious screed will become homogeneous with the application of a self-levelling cementitious mortar, polymer-modified; applicable in thickness from 1 to 30 mm, as MULTIPLAN-30 by Benfer.

**METHOD OF USE:****SURFACE AND PRODUCT PREPARATION:**

The substrate must be dry, load bearing, sound, have a good key and be free from substances which act as a separating layer. Separating and laitance layers and similar are to be mechanically removed by suitable means e.g, blasting or scabbling. With cement-based bonded or floating screeds the readiness to receive an application of MULTIPLAN-30 is to be tested with a carbide hygrometer (see advice section), in order to exclude possible further deformation of the screed slab due to shrinkage processes. The temperature of the air, material and substrate may not drop below +5°C during application and the week after.

For thicknesses up to 20 mm prime the concrete or cement-based screed with STARPRIM or BENFERPRIM and once dry lay MULTIPLAN-30. We recommend that the primer is allowed to fully dry. We recommend to allow the primer coat to completely dry out (approx. 6 – 12 hours) as the absorption capacity of the surface is minimised and the flow behaviour of MULTIPLAN-30 is maintained. For layers 20 mm thick or higher, smooth worn surfaces have to be primed with REOPRIM and sprinkled with excessive amounts of Quartz sand (grain size 0.5 – 1.0 mm). Prior to the application of MULTIPLAN-30, and after complete hardening (approx. 16 hrs), the surplus quartz sand can then be removed.

**PRODUCT PREPARATION:**

5.5 – 6.0 l of water is to be filled into the mixing vessel. Adding 25 kg of MULTIPLAN-30 mixing until a knoifree, 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 rpm. With a minimum addition of water ie: less excess water in the mixture allows a quicker surface maturity to be achieved.

**PRODUCT APPLICATION:**

MULTIPLAN-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.

MULTIPLAN-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 MULTIPLAN-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 STARPRIM is essential.

MULTIPLAN-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. 24 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.

**ADVICE:**

- In order to exclude a pore formation BENFERPRIM or STARPRIM is to be brushed into the surface thoroughly and should dry out completely. The still wet MULTIPLAN-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 3 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.
- Older already hardened, fixed ceramic layers are to be cleaned, grinded, primed with REOBASE, spread over with excessive amounts of Quarz 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 REOBASE, 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 levelling off with MULTIPLAN-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.
- Old waterproof adhesives have to be removed mechanically as much as possible, cleaned, primed with REOBASE, spread over with excessive amounts of Quartz sand (grain size 0,5-1,0 mm) and after complete reaction be vacuumed. Followed by levelling off with MULTIPLAN-30 upto 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 MULTIPLAN-30 must not exceed 0.5% without floor heating and 0.3 % with floor heating. Prime with BENFERPRIM/STARPRIM and allow complete drying out. After waiting a further 12 to 16 hrs the levelling off using MULTIPLAN-30 up to a maximum layer thickness of 10 mm can be carried out.
- Negative moisture pressure must be avoided with appropriate measures.
- 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 PFT G4/G5 mixing pump and the standard PFT G4 mixing helix, the D 6-3 rotor and stator D 6-3 Twister, set the water flow rate to 350 – 400 litres/hour. With the PFT consistency checking tube, the correct water addition can be checked and adjusted from the slump result. This may not exceed 60 cm on the prepared substrate and should be checked continuously as work proceeds.
- Perimeter, bay, structural and general movement joints are to be brought through or inserted as designed and stopped with a suitable material e.g. edge strips. Cut shrinkage control joints in the MULTIPLAN-30 once cured down to a third of the depth.
- Preparations such as the levelling off of transitions, excavations and uneven areas is to be applied with a stable repair mortar such as BENFERCURE-VARIO, TRIOTECH-30 or TRIOTECH-50
- Very porous substrates cause greater material consumption.
- High temperatures accelerate and lower temperatures slow down the setting process.

Priming table		
	For layer thickness $\leq$ 20 mm	For layer thickness $>$ 20 mm
Concrete with quartzsand	BENFERPRIM/STARPRIM	primer + broadcast
Cement screed with quartzsand, Cement quick screed,	BENFERPRIM/STARPRIM	primer + broadcast
Smooth substratum	STARPRIM	primer + broadcast
Cement bond surfaces	primer + broadcast	primer + broadcast
Fixed ceramic layers, terrazzo	primer + broadcast	primer + broadcast

Upper flooring		Heated	Unheated
Water permeable surface density		1.8%	2.0%
Textiled surface	Water vapour seal	1.8%	2.5%
	Water vapour permeability	2.0%	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%

**CLEANING:** The cleaning of tools has to be done with water before the product starts gripping.

**CONSUMPTION:** 1,65 kg/m<sup>2</sup>/mm thickness.

**PACKAGING:** MULTIPLAN-30 is available in 25 kg poly-lined bags, in pallet of 1.050 kg.

**STORAGE:** In the original closed package in a cool dry place.

**SHELF LIFE:** 12 months.

**PRODUCT TECHNICAL DATA**

Classification EN 13813:	CT C30 – F7 A1 fl
Basis:	Premixed powder
Colour:	Grey
Storage and Duration:	12 months in the original closed package in a cool dry place
Danger of harm:	Possible irritation of the eyes and skin upon contact
Flammability:	No
Apparent mass volume:	1.300 kg/m <sup>3</sup>
Mixture ratio:	5,5 - 6,00 liters of water per 25 kg bag
Mixing time:	3-5 min
Mixture consistency:	Fluid mortar
Mass volume of paste:	1800 kg/m <sup>3</sup>
Application temperature:	From + 5° C to + 35° C
Pot life:	30 minutes*
Thickness:	From 1 mm to 30 mm
Maximum grain size:	0,5 mm
Traversable:	After approx. 4 hour
Ceramic tiles laying (subject to residual humidity check < 4%):	All thickness: After 24 hours
Marble and stable natural stone laying (subject to residual humidity check < 3%):	Thickness < 6 mm: After 24 hours Thickness > 6 mm: After 48 hours
Wood and resilient laying (subject to residual humidity check < 2%):	Thickness < 6 mm: After 24 hours Thickness > 6 mm: After 72 hours 7 days
Final hardening:	
<b>Final performance:</b>	
Compression strength after 24 hours, 7 and 28 days:	14 N/mm <sup>2</sup> , 28 N/mm <sup>2</sup> , 30 N/mm <sup>2</sup>
Flexural strength after 24 hours, 7 and 28 days:	3 N/mm <sup>2</sup> , 7 N/mm <sup>2</sup> , 7 N/mm <sup>2</sup>
Temperature resistance:	From -30°C to +90°C * at 23°C and 50% relative humidity

PLEASE NOTE: The information given in this chart is based on our best experience and indicative only. It must in any event be verified by the end user, who assumes all liabilities deriving from utilization of the product.