



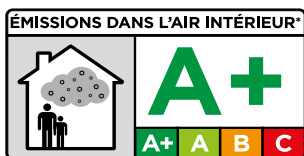
# MULTIPLAN-12

Self-levelling smoothing compound up to 12 mm

- Polymer modified
- Self levelling
- Water resistant
- For interior use
- Easy to use
- Rapid setting
- Suitable for heated screeds
- Pumpable
- For thicknesses from 3 to 12 mm
- **CE**

Certificate QB n° 151 S 174

*NEW FORMULA, MORE FLUID , LONG LASTING*



## TECHNICAL FEATURES:

MULTIPLAN-12 is a cementitious self-levelling mortar for internal and external floors.

## AREAS OF APPLICATION:

MULTIPLAN-12 is used in thicknesses from 3-12 mm for smoothing, repairing and levelling. Suitable substrates are concrete floors in accordance with DIN 1045, heated and unheated cement-based screeds non in accordance with DIN 18560, old, well bonded tile finishes and rapid cement-based screeds (e.g. SOLIDONE PRONTO). Not suitable as a wearing surface without additional finishes. Suitable substrates that have been levelled with MULTIPLAN-12 can be covered with tiles, needle punched carpets, textile finishes, linoleum, PVC.



TECHNICAL ASSISTANCE



INSURANCE GUARANTEE



TECHNICAL MEETINGS



PROFESSIONAL USE

## CONTRACT ITEM SPECIFICATIONS:

The cementitious screed will become homogeneous with the application of a self-levelling cementitious mortar, polymer-modified, applicable in thickness from 3 to 12 mm, as MULTIPLAN-12 by Benfer.

**METHOD OF USE:****SUBSTRATES 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-12 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 12 mm prime the concrete or cement-based screed with STARPRIM or BENFERPRIM and once dry lay MULTIPLAN-12. We recommend that the primer is allowed to fully dry.

**PRODUCT PREPARATION:**

Using 5.25-5.75 litres of water, sprinkle in 25 kg MULTIPLAN-12 and mix to a homogenous fluid consistency. Occasionally scrape a trowel around the edges of the mixing vessel to feed unmixed material stuck to the sides back into the mix. Subsequently stir through once again. It is recommended that a mixer with an approx. speed of 500-700 rpm is used.

**PRODUCT APPLICATION:**

Pour MULTIPLAN-12 on to the primed substrate and evenly spread with a suitable tool within the pot life (surface rake, toothed rake, long handled rake). It has been shown to be advantageous that by setting level points, the desired depth can be controlled whilst in the wet state. The required thickness should be applied in one operation. De-aerate the liquid layer with a spiked roller (or other suitable tool) and encourage to flow. The surface finish and level is much improved.

Protect the setting MULTIPLAN-12 from too rapid water loss e.g. from high room temperatures, direct sunlight and draughts. Where it is necessary to apply further layers of MULTIPLAN-12, these are best carried when the first coat will take foot traffic and is dry. Prime between layers with STARPRIM.

MULTIPLAN-12 can be tiled after 24 hours. For other surface finishes it is necessary to test the residual moisture with a carbide hygrometer (see advice section). Abide by the maximum permitted residual moisture content in the information sheet.

**ADVICE:**

- In order to reliably eliminate air bubbles, thoroughly brush BENFERPRIM or STARPRIM. De-aerate MULTIPLAN-12 with a spiked roller whilst still fluid.
- If water is lost too quickly (e.g. heated rooms or highly absorbent substrates) there is a risk of crack formation.
- Ventilation in the immediate area is necessary. However draughts during application and during the setting process are to be avoided as is direct sunlight. The interior and floor temperature must be a minimum of +5°C during application and for a week afterwards. Dehumidifiers may not be used in the first 3 days.
- The condition of the substrate is essential to the success of floor levelling. Absorbent substrates negatively affect the flow behaviour of the smoothing compound, therefore the substrate must be thoroughly prepared, cleaned and primed.
- Clean, abrade and prime old well bonded ceramic finishes with epoxy primer blinded with 0.5-1.0 mm quartz sand. Vacuum up excess once cured. Subsequently level up to a maximum of 5 mm MULTIPLAN-12.
- Completely remove lignin paste adhesives. Minimal quantities of dispersion based water soluble flooring adhesives, (surface area < 25%/m<sup>2</sup>) can remain on the substrate. Clean the substrate, prime with epoxy primer and blind with 0.5-1.0 mm quartz sand. Vacuum up excess once cured. Moisture from the substrate and the surface must be eliminated, if this is not possible, then completely remove the adhesive residues. Subsequently level with MULTIPLAN-12 up to 10 mm

- Heavy loading with negative or positive moisture pressure must be excluded or the adhesive residues must be completely removed. The total humidity of the screed can be calculated with the carbide hygrometer.
- Extensively remove old, water resistant flooring adhesives mechanically, clean, prime using epoxy primer and blind with 0.5-1.0 mm quartz sand and cleaned with a vacuum cleaner after allowing it to finish the reaction.
- At the time of levelling with MULTIPLAN-12 the residual moisture content of a calcium sulphate based screed when measured with a carbide hygrometer may not exceed 0.5% without underfloor heating or 0.3% with underfloor heating. Prime with STARPRIM and allow to dry fully. After 12-16 hours level up to a maximum of 12 mm with MULTIPLAN-12. Eliminate subsequent moisture ingress.

Maximum moisture content for levelling compounds, determined with a carbide hygrometer (see advice section)

Floor finish		Heated	Unheated
Density of surface	permeable to water	1,8%	2,0%
Woven surface	Water vapour barrier	1,8 %	2,5 %
	Water vapour permeable	2,0%	3,0%
Parquet	floating laying	1,8%	2,0%
Laminate flooring	floating laying	1,8%	2,0%
Ceramic tiles and/or natural/concrete tiles	thick flow-bed	2,0%	2,0%
	thin flow-bed	2,0%	2,0%

Direct contact between cement-based mortars and magnesite screeds leads to the destruction of the magnesite screed through a chemical reaction. Preparatory work such as e.g. patch repairing of thresholds and the repair of voids and uneven areas are to be carried out with the thixotropic repair mortar BENFERCURE-VARIO or TRIOTECH.

Substrates with large pores cause greater material consumption. Higher temperatures accelerate, lower temperatures delay the setting process.

**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-12 is available in 25 kg poly-lined bags, in pallet of 1.500 kg.

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

**SHELF LIFE:** 12 months.

#### PRODUCT TECHNICAL DATA

Classification according to:	EN 13813 CT-C25-F4 A1 fl
Basis:	Premixed in 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:	5,25 – 5,75 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:	20 minutes*
Thickness:	From 3 mm to 12 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
Final hardening:	7 days
<b>Final performance:</b>	
Compression strength after 24 hours, 7 days, 28 days:	3 N/mm <sup>2</sup> , 16 N/mm <sup>2</sup> , 25 N/mm <sup>2</sup>
Flexural strength after 24 hours, 7 days, 28 days:	1 N/mm <sup>2</sup> , 3 N/mm <sup>2</sup> , 4 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.