



LEVEL S100 IS A SPECIAL CEMENT-BASED SCREED MORTAR WITH FLUID CONSISTENCY AND CONTROLLED SHRINKAGE



## PRODUCT DESCRIPTION

Level S100 is a special cement-based screed mortar with fluid consistency and controlled shrinkage. It is used for quick drying screeds, suitable for use in interior civil and commercial applications. Level S100 is classified as CT – C40 – F10 – A9 – A1fl in compliance with EN 13813 Standards.

## FIELD OF APPLICATION

- For interior use only.
- Suitable substrate under ceramic tile, stone, parquet, and resilient materials.
- Floating and bonded screeds from 30 mm to 100 mm thick.
- Suitable for heated screeds from 30 to 100 mm.
- Ideal for renovations and historic retrofits with site constraints.
- For areas subject to heavy traffic.

## ADVANTAGES

- One-component and premixed – just mix with water
- Extended working time – 45 minutes
- Controlled crack shrinkage
- Quick-drying – walkable after 6 hours, installation of tile or stone after 72 hours
- Safe, non-flammable
- Easy to use, fluid and pumpable

- Does not require reinforcement mesh
- Low VOC emissions – better indoor air quality

## SUITABLE SUBSTRATES

- Concrete
- Cement Mortar
- Ceramic Tile and Stone primed with DCI Grip Primer or Beton Contact

## LIMITATIONS

- Do not mix with other cement or components.
- Do not apply on metallic or rubber substrate.
- Do not apply on not sufficient cured substrate.
- DO NOT apply in thicknesses over 100 mm per coat.
- Do not apply in temperatures above 40°C and below +8°C.
- DO NOT use the product on damp substrates.
- Surfaces must be structurally stable, sound, and rigid enough to support the concentrated loads expected from installation.
- Prime highly absorbent surfaces to improve adhesion.
- It is recommended to use expansion joints where necessary.

## APPLICATION PROCEDURE

### **A) Preparation of the substrate**

The substrates must be dry, solid, and free of dust, loose and detached parts, paint, wax, oil, and other remaining products. Apply a special compressible band around the perimeter of the rooms to be laid and

around any vertical elements that pass through the floor (such as pillars and columns).

### **B) Preparing the product**

Mix product with approximately 26-28% water (6.5-7 liters per 25 kg bag), using either a concrete mixer or traditional mixing equipment (pump).

- If using a concrete mixer, add the desired amount of material, start the mixer, and add water. Mix for 5 minutes until a smooth, fluid consistency is obtained.

- If using a traditional mixer/pump, add the desired amount of material to the hopper, start the mixer and slowly add the required water amount until the consistency is fluid.

The final consistency should be smooth and fluid, but not liquid.

### **C) Applying the product**

The screed mortar must be used within 45 minutes after mixing. Once level indicators are positioned, the screed mortar must be poured and spread evenly, then leveled with suitable leveling bars or squeegees. The mortar is poured onto the primed substrate in one layer and is spread to the desired thickness with a large metal notched trowel, squeegee, etc. Once the product has self-leveled, it must be rolled immediately with a suitable spiked roller to release all the air retained within its mass.

### **D) Installing the tiles**

Installation of Tiles Installation of the tile finish can begin approximately 72 hours after the application of Level S100 (at 23°C and 50% R.H.). Provide for expansion joints in compliance with UNI 11493-1: 2016.

## COVERAGE / CONSUMPTION

The consumption is approximately 15-17 kg/m<sup>2</sup> at 1 cm thickness.

## PACKAGING

Level S100 is supplied in:

- 25 kg paper bags.

## SHELF LIFE-STORAGE

Original sealed bags of this product are guaranteed to be of first quality for 12 months if stored off of the ground in a dry area. The high humidity will reduce the shelf life of the bagged product.

## SAFETY INSTRUCTION

LEVEL S100 contains cement that, when in contact with sweat or other body fluid, can cause allergic reactions to those predisposed and irritant alkaline reactions and allergic reactions to those predisposed. It can cause damage to the eyes. Wear protective gloves, goggles, and take the usual precautions for handling chemicals during use. When in case of contact with skin or eyes, wash immediately with plenty of water and seek medical attention.

# TECHNICAL DATA

Product identity	
Consistency	fine powder
Color	grey
Bulk density (kg/m <sup>3</sup> )	1,300
Dry solids content (%)	100
Standard	EN 13813
Application data (at +23°C and 50% R.H.)	
Mixing ratio	approx. 26-28%
Thickness (mm)	from 3 to 10
Self-leveling	yes
Density of mix (kg/m <sup>3</sup> )	2,100
pH of the mix	approx. 12
Application temperature range	from +5°C to +35°C
Pot life	45 minutes
Setting time	180 minutes
Set to light foot traffic	12 hours
Final performances	
Compressive strength according to EN 13892-2(N/mm <sup>2</sup> )	
24 hours ≥ 20 / 72 hours ≥ 25 / 7 days ≥ 30 / 28 days ≥ 40	
Flexural strength according to EN 13892-2 (N/mm <sup>2</sup> )	
24 hours ≥ 3 / 72 hours ≥ 5 / 7 days ≥ 7 / 28 days ≥ 9	
Adhesion to concrete according EN 13892-8 (N/mm <sup>2</sup> )	> 2.0
Abrasion resistance Taber abrasion test (H22 disk -500 g - 200 rpm)	< 0.5

## WARNING

Danger. Contains Portland Cement: Chromium VI < 2 ppm within the validity period of the product. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H335 May cause respiratory irritation. P261 Avoid breathing dust. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302 + P352 IF IN CONTACT WITH YOUR SKIN: Wash with plenty of water/... P305 + P351 + P338 IF IN CONTACT WITH YOUR EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/doctor/...



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