



# PRONTOPP®

## TMC

**CALCIUM SULPHATE MORTAR EN 13813**

Item number: 01.413

**Technical  
Data Sheet**

### Application area

Manufacturing of calcium sulphate flowing screed with fast ready-to-lay properties for all types of floors of strength class CA-C40-F7. **PRONTOPP® TMC** is a ready-mixed factory-dried mortar to which you only need to add water.

### CHARACTERISTICS

### Product description

**PRONTOPP® TMC** is used as a ready-mixed factory-dried mortar for a homogenous, easily processed calcium sulphate flowing screed. The factory-dried mortar already includes all the necessary aids required to achieve a comfortable processing of the fresh mortar and a reliable hardening.

### Product properties

- Homogenous, flowable screed mortar
- Short build-in times, considerable pouring output
- Low swelling and shrinkage behaviour enabling large areas to be laid with a reduced number of expansion and contraction joints. No interfering joints in natural stone toppings!
- Fast setting and hardening bringing about high early and final strengths (CA-C40-F7).
- Accessible after 6 hours (at 20°C), partially loadable after 24 hours.
- Ready to lay after 14 days\*  
(at ≤ 2.0 CM-% in case of thermal screed in case of unheated screed).
- Minimum screed thickness of 35mm for floating screed and domestic use.
- Biologically friendly building product

\* Specifications refer to a 40 mm screed thickness in an unheated system and 60 mm thickness for a heated system.

### Technical specifications

Shrinkage and swelling:	≤ 0.2 mm/m
Thermal conductivity:	$\lambda_2 = 1.2 \text{ W/mK}$
Thermal expansion:	0.01 mm/mK
Accessibility:	after 6 hours
Partially load ability:	after 24 hours
Strength in flexure (28 days):	ca. 7 N/mm <sup>2</sup>
Compressive strength (28 days):	ca. 40 N/mm <sup>2</sup>
Ready to lay:	In case of unheated screed and thermal screed: ≤ 2.0 CM-%
Thermal load ability:	< 55°C
Apparent density:	1.1 – 1.3 kg/m <sup>2</sup>
Wet mortar reaction:	alkaline
Processing temperatur:	> + 5 °C
Shelf life:	If stored properly, c. 6 months

### FEATURES

### Supply form

loose in silos  
paper sacks with PE inserts: 25 kg  
Big-Bag (upon request): 800 kg

### Coverage

Material requirement c. 18 kg/m<sup>2</sup> per 10 mm screed thickness, 1.85 t will give you 1 m<sup>3</sup> of fresh mortar.

### PROCESSING INFORMATION



## Installation

- **PRONTOPP® TMC** is mixed with a water / dry mortar ratio of 0.20. According to Hägermann on a dry auf panel, 28 to 32 cm of flow mass will be achieved. It might be necessary to vary the water ratio in order to maintain this. The flow mass must be regularly checked by the processor, as the water / binding ratio could significantly influence the fresh properties and the speed at which ready to lay can be achieved using **PRONTOPP® TMC**.
- Ensure that no air-entraining impurities (tenside from cleaning water, air-entraining agents from recycled water etc.) come into contact with the fresh mortar. Among others, these will negatively influence the fresh mortar consistency and the hard mortar properties.
- Generally ensure sufficient mixing time, both in the case of mix-in-plant and site mixing. This will guarantee the properties of the plasticizer.
- In the case of mix-in-plant, during the transportation time to the site, the mixing drum of the transit mixer must rotate permanently in order to maintain the flow effect. Otherwise, the fresh mortar will become rigid and harden too quickly.
- If the plasticizing effect of the fresh mortar is maintained, the system can be worked for up to 2 hours. After max. 3 hours, the fresh mortar must have been processed in full.
- Further process the **PRONTOPP® TMC** in precisely the same way as you would a standard calcium sulphate screed mortar. Always buff in a diagonal manner. In doing so, the first buffing must take place at the lowest point, the second close to the surface.
- On account of the expected high strengths, the screed thickness can be kept fairly thin.
- Screeds made using calcium sulphate binding agent must not be exposed to long periods of moisture. If necessary, a damp-proof membrane in accordance with DIN 18195 must be used to protect against the penetration of dampness. This measure must be specified by the person drawing up the plans for the site planning.

## Aftertreatment

- **PRONTOPP® TMC** forms a sinter skin on the screed surface. This must be sanded off prior to further processing. The time to sand is somewhere between the 3rd and 8th day after the installation of the screed. Pull-up strength show high values of  $\approx 1.5 \text{ N/mm}^2$ .
- Taking in account the low shrinkage behaviour no curing is advised.
- In rare cases, efflorescence from the carbonate or the sulphate can occur, but this is not harmful. This can be removed by simply vacuuming, sweeping or sanding.

## Sustainability

- **PRONTOPP® TMC** is based on synthetic calcite sulphate. It is a by-product of a process of the chemical industry and it is  $\text{CO}_2$  - value almost balanced. The production of synthetic calcite sulphate does not require additional thermal energy and a release of mineral bond  $\text{CO}_2$  will not occur.
- **PRONTOPP® TMC** binds the total water into its crystal structure. No additional water is put into the building project. Loading with humidity (with regular screed of about 90 - 130 litres additional water per  $\text{m}^3$  screed mortar), extended drying time (regularly about 28 to 56 days depending on conditions) and additional energy for a thermal heating process is not required. However this process is still inevitable to reduce thermal induced tensions.

## Comment

The raw materials we process and the products we produce are subject to strict factory inspections. Do not use additives from other manufacturers when using this product. It is stressed that our products and the procedure must be tested for suitability with your circumstances. As we have no control over the construction site conditions or the execution of the work itself, we cannot be held legally liable as a result of the information given in this leaflet. All previous versions of this leaflet shall become invalid with the publication of this leaflet.

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## PROCESSING INFORMATION

## GENERAL INFORMATION