#### Technical Datasheet Latermix Cem Mini

# LATERMIX CEM MINI VERSATILE SUPERLIGHT INSULATING CONCRETE

## FOR SCREEDS, FLOOR LEVELING, SLOPED SURFACES WITH DIRECT BONDING OF FLOOR COVERINGS AND WATERPROOFING

- 3 times lighter than traditional products
- Universal use for interior and exterior
- Tiles can be directly bonded without levelling compounds
- 100% mineral, non-combustible, and free of toxic emissions
- CE marking according to NF EN 13813

#### **PRODUCT DESCRIPTION**

Latermix Cem Mini is a versatile lightweight and insulating ready-mix concrete in bags, with a closed structure and semi-fluid consistency, based on special hydrophobic expanded clay Laterlite Plus.

#### FIELDS OF APPLICATION

- Lightweight screeds for interior or exterior use.
- Lightweight and insulating floor leveling and filling under screeds.
- **Sloped formations** (max 15%) and insulation on flat roofs direct application of waterproofing.

#### **APPLICATION METHOD**

#### **Substrate Preparation**

The substrate must be clean, solid, crack-free, dry, and free from risks of rising damp.

Provide peripheral decoupling of walls and columns with a resilient strip of at least 3 mm thickness.

- Very absorbent old substrate: prevent too rapid dehydration of the mix by applying a primer (see Latex CS) on the substrate or by interposing a vapor barrier film (see Membrane CS).
- New concrete substrate (recently poured): in the case of floor coverings sensitive to moisture, to avoid any rising residual moisture, insert a vapor barrier layer in the form of a film or primer (see **Primer CS**).
- Wooden floors: interpose a waterproof and breathable membrane (vapor-permeable) Membrane CS. Also see RAGE recommendations - Grenelle de l'Environnement 2012 -Screeds and Slabs on Wooden Floors in New Construction/Renovation.

**Floor Leveling:** It is recommended to perform a preliminary leveling before laying the screed in case of significant thicknesses to be compensated or if there are sanitary pipes and/or electrical

conduits (DTU 26.2). Use the same **Cem Mini** to make a first leveling layer (even in adhesion to the substrate), or see **Latermix Cem Classic**, super-lightweight leveling with rapid drying.

# **Product Preparation**

The product is ready to use after mixing with water. No need to add other materials (aggregates, additives, etc.).

## Concrete Mixer / Planetary Mixer

- Place the contents of one or more full bags into the mixer (do not exceed 60% of its capacity).
- Add approximately 6-6.5 liters of water per bag.
- Mix for about 3 minutes until obtaining a pasty and "semi-fluid" consistency.

## Do not extend the mixing time.

## Pneumatic Screed Mixer-Transporter ("screed pump")

When using a mixer-transporter, the amount of mixing water should be increased depending on the pumping distance.

**NOTE:** The water dosages and mixing times indicated above are given for optimal use of the product, both in terms of strength and consistency. Higher dosages may extend drying times, and lower dosages may cause the screed to dehydrate too quickly. It may, however, be preferable, for example in summer, depending on the application conditions, to slightly increase the amounts of water for better workability of the product.

## Application

- Make reference points and/or strips at the desired level to determine the height.
- Place the mortar and level it with a straightedge.
- It is not necessary to compact or trowel the mix.
- For a smoother surface, it is possible to finish with a float.

#### **Application Thicknesses**

- Unbonded screed:
  - Minimum 5 cm at any point.
- Floating screed Insulant SCAM SC1:
  - Minimum 8 cm.
- Floor leveling / compensation under screed:
  - Minimum 5 cm.
  - Locally 3.5 cm (on limited surfaces) in adhesion to the substrate (bonding slurry).
- Wooden floor: floor compliant with RAGE recommendations "Screeds and slabs on wooden floors".

**Bonded application:** only on concrete substrate with a bonding slurry composed of cement + latex + water. Apply with a brush on the substrate. The screed must be laid on the fresh slurry. See **Latex CS**.

**Jointing:** every 25 m<sup>2</sup> and at most every 8 linear meters. Joints made on fresh mortar or by mechanical sawing over 2/3 of the screed thickness. Provide joints when the length/width ratio of the rectangular surface exceeds the value of 3, and when the surfaces are irregular (L-shaped, etc.): try to approximate a square shape. Expansion joints of the structure must always be continued in the screeds and the floor covering (DTU 26.2).

**Stopping and Resuming the Screed:** Stop the screed with formwork; resumption should be treated the same way as contraction joints.

# **Curing of the Screed**

The freshly laid screed must not be re-wetted and must be protected from too rapid drying, especially in summer months, in case of placement in full sun and/or when there is strong ventilation. Between the end of the laying and the application of floor coverings, the screed must not be exposed to rain or other climatic events that may compromise drying. It must not be damaged by construction traffic or heavy loads.

## Covering

- **Tiles, ceramics, stoneware, stone:** direct application without levelling layers. Waiting time before covering: 7 days.
- Thin, flexible floors (linoleum, carpet, PVC...), parquet: covering when the moisture content of the screed is less than or equal to 3% (to be checked beforehand by carbide bomb measurement). Higher moisture levels: provide a barrier against rising damp (see **Primer CS**). Smoothing compound / levelling according to the corresponding DTU and manufacturer's instructions. See also **Latermix Fast** lightweight screed with rapid drying.
- Screed or slab (Latermix Cem Mini used as floor leveling): the screed/slab must be made at least 7 days later. Laying moisture-sensitive coverings on the screed: place a vapor barrier between the two layers.

## **TECHNICAL CHARACTERISTICS**

- Density in bag (NF EN 13055-1): Approximately 600 kg/m<sup>3</sup>
- **Density in application:** Approximately 600 kg/m<sup>3</sup>
- Working time of the mix: Approximately 60 minutes (at 20°C)
- Application temperature: From +5°C to +35°C
- Walkable: 24 hours after laying
- Compressive strength (NF EN 13892-2): 5.0 MPa N/mm<sup>2</sup> (50 kg/cm<sup>2</sup>)
- Thermal conductivity (NF EN 12667):  $\lambda = 0.142$  W/m·K
- Water vapor diffusion factor (NF EN ISO 10456):  $\mu$  = 6 (in humid environment)

- Water vapor permeability (UNI 10351):  $\delta = 27.6 \times 10^{-12} \text{ kg/ms} \cdot \text{Pa}$
- **Specific heat capacity:** Cp = 1000 J/(kg·K)
- Reaction to fire (NF EN 13501): Euroclass A1 (non-combustible)
- Indoor air emissions (order of 19/04/2011): A+

#### Packaging

50-liter bags on shrink-wrapped pallets: 50 bags per pallet, i.e., 2.50 m<sup>3</sup> of powder product per pallet.

#### Consumption

Approximately 0.21 bags/m<sup>2</sup> per cm of thickness (depending on compaction).

## Storage Conditions (European Directive 2003/53/EC)

Store in unopened original packaging, protected from moisture in a covered area.

- Shelf Life (E.D. 2003/53/EC): 12 months from the date of manufacture.
- Safety Data Sheet: Available on the website <u>www.laterlite.fr</u>
- CE Marking: NF EN 13813 CT-C5-F1
- Declaration of Performance (DoP): Available on the website www.laterlite.fr/dop

#### RECOMMENDATIONS

- Do not mix the product by hand, with a shovel, or with mixers like a drill.
- Always mix full bags of the product.
- The product is not intended to remain exposed and must always receive a floor covering or waterproofing membrane.

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