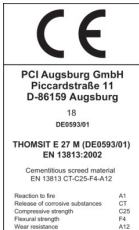


Fast-setting screed cement

E 27 M

for fast-track screeds



FEATURES AND BENEFITS

- Can be covered with tiles after approx. 3 days, with vapour-tight coverings and parquet after approx. 7 days, walkable after approx. 1 day.
- Ready-mixed mortar, therefore no mixing with sand required on site.
- Long processing time, can be processed and smoothed for approx. 1 hour despite the short curing time.
- Suitable for pump delivery, even at higher temperatures.
- Temperature-resistant from – 30 °C to + 80 °C, therefore suitable for balconies, patios, garages, industrial floors with superheated steam cleaning.
- Insensitive to moisture, therefore suitable for permanently wet areas.
- Limited deflection (suitability test according to 6.2 DIN 18 560-2), thereby reducing the layer thickness to 30 mm for screeds on an insulating layer according to Table 1 (perpendicular load ≤ 2 kN/m²) or Table 2 (perpendicular load, surface load ≤ 3 kN/m²), or possible on 30 mm pipe coverage with heated screeds.

FIELDS OF APPLICATION

- For indoor and outdoor use, also for direct use.
- For permanently wet areas.
- For fast-curing bonded screeds and screeds on a separating or insulating layer.
- Suitable for heated screeds.
- As a repair mortar for concrete floors and cement screeds.
- For layer thicknesses from 20 to 80 mm.

TECHNICAL DATA

Material data

Base material	Special cement with additives and aggregates
Maximum particle size	6 mm
Components	Single-component

E 27 M

Bulk density	Approx. 1.9 g/cm ³
Consistency	Powder
Colour	Grey
Combustion behaviour	A1 _{fl}
Strength in accordance with DIN EN 13892-2	
Compressive strength after 28 days	≥ 25 N/mm ²
Flexural tensile strength after 28 days	≥ 4 N/mm ²
Storage	Store in a dry place. Do not store for long periods above +30°C.
Shelf life	At least 9 months
Package size	25 kg kraft paper sack with polyethylene insert

Application data

Consumption	Approx. 20 kg per m ² and cm of thickness
Gauging water quantity/mixing ratio	Approx. 2.1 litres of water + 25 kg of THOMSIT E 27 M
Layer thickness	
– Minimum	Approx. 20 mm for bonded screed Approx. 30 mm for screed on isolating or insulating layer (test of fitness of purpose in accordance with Section 6.2 of DE 18560-2)
– Maximum	Approx. 80 mm
– Heated screed	Pipe cover at least 30 mm
Working temperature	+ 5 °C to + 25 °C
Mixing	Positive mixer
Conveyor system	Pneumatic
Consistency of mortar	Creamy
Working time*	Approx. 60 minutes
Curing times*	
– Can be walked on after	About 1 day
Can be covered after	
– For ceramic tiles and slabs	About 3 days
– For fitted carpets, parquetry and vapour-tight coverings	About 7 days at max. 3.0 CM % residual moisture (The CM measurement must be made in accordance with the requirements for cement screeds stated in the operating instructions of the CM unit manufacturer.)
Temperature resistance	– 30 °C to + 80 °C
Frost resistance	Yes
Resistance to permanent moisture exposure	Yes

*These times are reached if the temperature of the mortar, ambient air and substrate over the entire period is approx. +23°C, the relative humidity does not exceed 50%. See also "General notes on the construction of fast-setting cement screeds".

PREPARATION OF SUBSTRATE for bonded screed in accordance with DIN 18 560

The substrate must be clean, structurally sound, able to bear weight, and free from grease and other residues. Remove severe contamination mechanically. Remove residues of oil and wax with oil remover. Remove cement slurry from smooth surfaces, e.g. by shot blasting (Blastrac).

Pre-wet the prepared substrate, keep it moist, apply THOMSIT E 40 H bonding agent and THOMSIT E 27 M screed mortar wet on wet.

APPLICATION PROCEDURE

THOMSIT E 27 M must be used in accordance with DIN 18560 and DIN 18353.

1. Mixing

1.1 Use a positive mixer for mixing large quantities. Place THOMSIT E 27 M in the mixer and mix with water with the motor running for about 1 minutes until the mixture reaches a creamy consistency. Add about 2.1 litres of water for each 25-kilogram sack of THOMSIT E 27 M.

1.2 Individual sacks: THOMSIT E 27 M can also be mixed using a stirrer attachment on a drill in an appropriate mixing container (e.g. drum). Fill the appropriate quantity of gauging water into the container, add THOMSIT E 27 M, and stir until the mixture has a creamy consistency.

2. Laying

Spread the mortar using a shovel, trowel or scraper, compact, scrape off with a levelling board, rub down with a wooden board and smooth if necessary.

Protect newly laid screed from rapid drying.

GENERAL NOTES ON CONSTRUCTION OF FAST-SETTING CEMENT SCREEDS

The consistency must be creamy. If the consistency is too soft or too much water is used, the screed will not achieve the appropriate strength, resulting in shrinkage cracks and bulges. The equilibrium moisture level will not be reached until later. The strength and low residual moisture level important for laying subsequent coverings depend on the following factors:

1. Compaction of fresh mortar

Low density and insufficient compaction of fresh screed mortars result in low strength.

2. Humidity and ambient temperature

At low working and substrate temperatures or high relative humidity, the drying and curing times may be significantly longer (compared with the times at +23°C). The relative humidity should not exceed 70% during the curing process. The residual moisture content should always be checked before laying impervious coverings.

3. Layer thickness

The screed thickness required is defined in DIN 18560.

INFORMATION ON THE APPLICATION AS HEATED SCREED

In accordance with DIN 18560-2 and DIN EN 1264-4.

Preheating phase:

A THOMSIT E 27 M screed can already be heated after 3 days. Initial preheating should take place at a flow temperature of +25°C, which must be maintained for 3 days. The maximum flow temperature must then be set and maintained for another 4 days. Then the heating system must be switched off.

Ensure an adequate air supply and ventilation during the heating and cooling phases. Avoid draught! Do not allow the room

temperature to drop below +15°C and the temperature of the screed surface to fall below +18°C. The heating contractor must draw up a report on the initial heating operation and subsequent commissioning. The report must be handed over to those concerned and must include the following information:

1. Data of the pre-heating operation with the applicable flow temperatures.
2. Maximum flow temperature reached.
3. Operating condition and ambient temperature at the time of handing over.
4. Date of commissioning.

Screeds which are heated up this way can be covered with a wide variety of floor coverings.

PLEASE NOTE

- Do not apply THOMSIT E 27 M at substrate temperatures below +5°C or over +25°C.
- The general guidelines for cement screeds must be observed. The fast curing properties of THOMSIT E 27 M must be taken into consideration.
- Only use entire sacks of THOMSIT E 27 M.
- THOMSIT E 27 M must not be mixed with other cements, fast-setting binders, fibres, admixtures or additives, or diluted with aggregate.
- Apply THOMSIT E 27 M within approx. 60 minutes (at approx +23°C) after mixing. Higher temperatures reduce and lower temperatures increase the time stated.
- Never add water or fresh THOMSIT E 27 M mortar to reconstitute a mortar which has already begun to set.
- Exposed screeds which are ready for covering will absorb moisture under unfavourable climatic conditions (e.g. high humidity). The residual moisture in the screed may be reduced by taking appropriate measures (e.g. use of dehumidifiers).
- In outdoor applications, cover the screed with sheeting until it can be walked on if rain or extremely dry or windy conditions are expected
- Clean tools and mixing buckets with water immediately after use. When the product has started to dry, it cannot be removed using water.

INFORMATION ON THE SAFE USE

THOMSIT E 27 M contains cement:

Causes severe eye damage. Causes skin irritation. Keep out of reach of children. Wear protective gloves (e.g. cotton gloves soaked in nitrile) and eye/face protection. If in eyes: Rinse carefully with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical advice/attention. If on skin: Wash with plenty of soap and water and apply skin cream (pH approx. 5.5). If skin irritation occurs: Seek medical advice/attention.

The product is non-flammable. No special fire precautions are therefore required.

Water hazard class: 1 (Self-assessment)

Information available from: Product Safety/Environmental department (for health and safety matters): Phone: +49 821/5901-0
PCI emergency hotline: Phone +49 180 2273-112

Giscode ZP 1

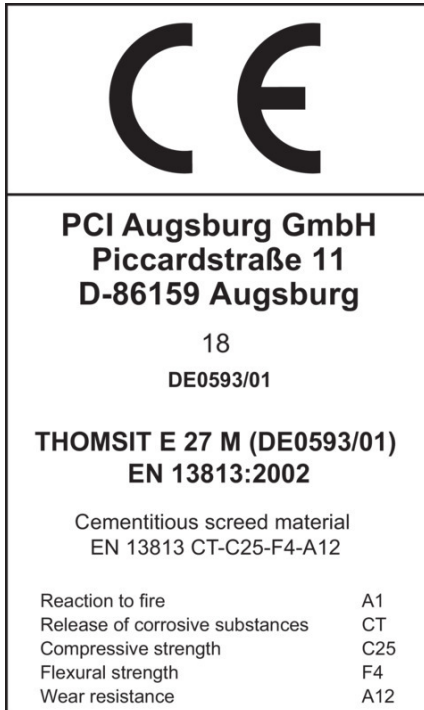
For further information: see PCI Material Safety Data Sheet.

SERVICE FOR ARCHITECTS AND DESIGNERS

Please contact our sales force if you need advice or building project support. Further documents can be downloaded from the internet at www.thomsit.com.

DISPOSAL

Further information on disposal can be found on our homepage at <http://www.thomsit.de/services-seminare/entsorgungshinweise>. Do not allow the product to enter sewer systems, surface waters or the soil. Only return the completely emptied buckets for recycling. Dried material residues can be disposed of as household waste. Non-hardened product residues must be taken to a collection point for hazardous waste.



DECLARATION OF PERFORMANCE

The Declaration of Performance can be downloaded as pdf file under www.thomsit.com.

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