

SUPERMIX SE

QUICK CEMENT FOR
GRINDED SCREEDS
AND SCREEDS WITH
BURNED FINISH

TECHNICAL DATA SHEET Page 1/2

Supermix SE is a ternary solid binder and complies with the requirements of the AgBB scheme and the DIBT approval principles. An independent material testing institute (IBR) tested, certified, and classified the material as harmless to the building environment with emission class A+, and thus as practically emission-free.



Supermix SE quick cement is our solution for terrazzo and design screeds of representative rooms such as sales rooms, restaurants, foyers, museums and office buildings.

Particularly notable is the fact that, when handled correctly burned finishes without any blistering can be produced.

Benefits for realizing the objects entrusted to you on time and in a quality-enhancing manner:

- Moisture content 12-14 days after installation $\leq 2.0\%$
- Accessible after 24 hours
- Almost shrinkage- and deformation-free
- Moisture and weather resistant (waterproof)
- Quickly coatable and usable
- For indoor and outdoor applications
- Thin-layer screeds possible in deviation to DIN
- Excellent for design floors (burned finish or grinded)

SUPERMIX SE / moisture content 12-14 days $\leq 2.0\%$

Recommended dosage (strengths according to DIN EN 13 892-2)					
Days	Compression strength [N/mm ²]	Bending tensile strength [N/mm ²]	ratio Binder : aggregate	w/b-ratio	material consumption of a 10 mm layer
after 3 days after 28 days	≥ 30 ≥ 40	≥ 4 ≥ 6	1 : 5 (62.5 kg : 300 kg)	max. 0.47	ca. 3.2 kg/m ²
after 3 days after 28 days	≥ 35 $\geq 50^*$	≥ 5 $\geq 7^*$	1 : 4 (75 kg : 300 kg)	max. 0.44	ca. 3.8 kg/m ²

* Add 10 % grit (2 buckets of 10 l / mixture) preferably 2-5 mm, depending on the results of the initial test (grading curve)

From a mixing ratio of 1 : 5, thin-layer heating screeds (type A) with a heating pipe cover of ≥ 30 mm can be produced (note initial test) and a surface tensile strength of 1.5 N/mm² on average can be achieved. The precondition for achieving the average values is screed surface treatment with machines and compliance with the recommended w/b value ≤ 0.47 .

CONSTRUCTION CLIMATIC CONDITIONS

- Observe construction site preparation according to DIN 18560
- Protect from rain, drafts and direct sunlight during the curing phase
- Room and substrate temperatures not below 5 °C and not above 35 °C
- No rewetting after reaching readiness for covering under normal site conditions
- Suitable climatic conditions are conducive to the quality of the screed in the area of drying and strength

SCREED DRYING

- Freshly laid terrazzo and design screeds must not be covered during drying. They must not be partially covered with building material, e. g. gypsum plasterboard, etc., as this will lead to staining.
- Protective covers may only be laid over the entire surface after the surface has dried, otherwise staining will also occur here.

SUBSTRATE PREPARATION

- The cementitious substrate must be clean, open-pored, absorbent, and free of soft detachable components
- The substrate load-bearing capacity must correspond to the expected load
- When subjected to loads through moving vehicles, the surface tensile strength must be 1.5 N/mm² on average, whereby the smallest individual value must not be less than 1.2 N/mm²
- Substrate preparation must be carried out in accordance with the relevant standards and the state of the art



- The prepared substrate must be load-bearing, free from oils and greases, as well as free from dust and separating agents
- According to DIN EN 197-1 for bonded screeds all substrates produced with normal cements are allowed. If modified screeds (except e-4 products) are suitable as a substrate or not, must be tested on your own responsibility. Direct bond to calcium sulfate screeds is not permitted. For bonded screed (screed on screed), make sure that the subfloor has at least the same quality as the top layer and a minimum thickness of 50 mm

BONDED SCREED WITH MINERAL BONDING BRIDGE

We recommend our high-performance bonding agent QUICKPICK

BONDED SCREED WITH SYNTHETIC RESIN BONDING BRIDGE

We recommend our high-performance composite resins TPOX 5° and TPOX 10°

SUPERMIX SE-MIXING THE BONDING SLURRY

Place approx. 9 - 12 liters of water with 500 ml Quickpick in the mixing vessel and mix in one bag of Supermix SE with the stirrer and add water until a plastic, mushy slurry (not liquid, watery) is formed

FOR DIRECT USE (UTILITY SCREEDS)

- TOPSICHT (www.estrich4.com under products) is perfect for achieving an even surface, slowing down the drying and to achieve a higher surface strength
- If required and TOPSICHT is not used, the usable surface can be covered with a foil for max. 24 h after smoothing
- If the screed is to be shot-blasted or milled, the surface must be covered with a foil for max. 24 h immediately after installation
- To prevent condensation, efflorescence and staining, the screed must not be covered with protective covers like (covering fleece, covering foil, etc.) until it is ready for covering

PROCESSING INFORMATION

- After adding all components, the mixing time is at least 2 minutes
- Limit the water to be added to the minimum necessary (observe water reduction or w/b value 0.44 - 0.50)
- Installation: Compacting, leveling of the screed using standard craft techniques. To achieve high surface strength mechanical smoothing of the screed is required (e.g. for direct use or as a coating substrate)
- Please observe the general rules of the screed laying craft, especially DIN 18560, "screed in construction"

RAW MATERIALS

- Supermix SE according to recommended dosage
- Aggregate: According to DIN EN 13139 or DIN 1045/2 grading curve A/B, 0 - 8 mm, as well as 0 - 4 mm to produce screed
- When using our products, no additives / binders from other manufacturers may be used

SAFETY INFORMATION

General industrial hygiene standards must be observed when using our e-4 products!

STANDARDS AND INSPECTION REGULATIONS

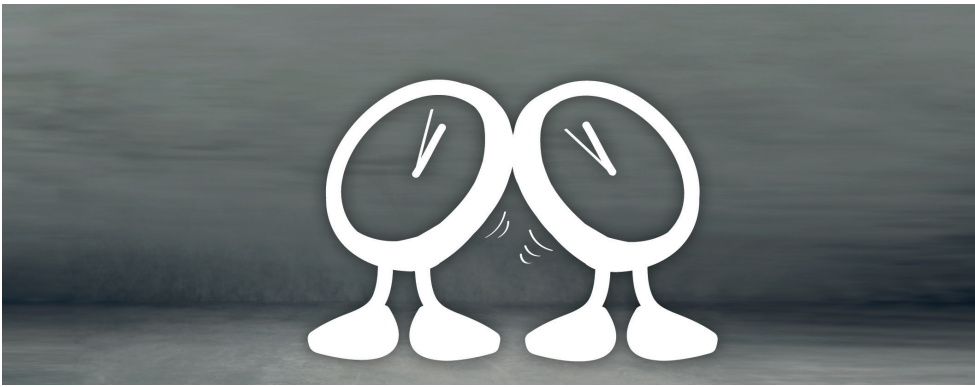
All relevant standards, regulations and rules of the craft apply, especially DIN 18560, ÖNORM 3732, EN 13318, EN 13813, DIN 18353 and the latest BEB work guidelines, as well as the state of the art in the screed-laying craft.

Please note: The English translation is based on the German original. The translated version of the German data sheets is a courtesy translation and for informational purposes only. In case of dispute, controversy or inconsistency between the German version and the version in another language the German version is binding in accordance with the legal provisions. The German version is available on our website or will be sent upon written request.

Our information is based on our current experience and elaboration, thus we assume the warranty for the perfect quality of our products. We cannot assume responsibility for the success of the work carried out by you, as no legal liability can be derived due to different construction site conditions, laying techniques and construction designs. It is recommended to create trial areas in individual cases. In addition, our „General Terms and Conditions“ apply. With the publication of this new data sheet, the previous ones lose their validity.

Color: grey
Form: powder
Form of delivery: bag to 25 kg

Self life: min. 6 months, store protected from sunlight and frost
Processing temperature: from +5 °C to +35 °C



SUPER MIX SE

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FIELD SIZES AND JOINTS

FIELD SIZE/JOINTS ON INSULATION AND SEPARATION LAYER

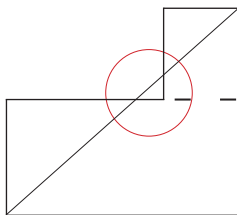
- In the case of smoothed terrazzo (design) screeds, the joints can also be formed with cut joints by agreement. This requires a separate agreement between the client or his representative and the installer.
- Surfaces not fully heated must always be separated by an expansion joint (exception: unheated edge zones up to 1 m in width and kitchenettes)
- Create expansion joint between heated and unheated areas
- For areas with separate heat controls (heating circuits), create an expansion joint
- Heated areas up to approx. 100 m², unheated areas up to approx. 200 m² (max. side length 15 m) with a side ratio of 1:2, for which the floor plan areas of L or U areas must be assessed as follows

Deviations from the previous points must be coordinated with e-4 GmbH.

EXAMPLES:

L-AREAS WITH FLOOR PLAN LENGTH

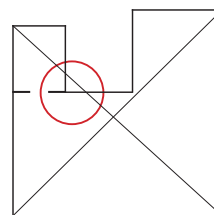
Up to 10 m heated and 15 m unheated:



L-areas in case of intersecting the diagonal line (see red circle) have to be divided into two areas and the in the room protruding corner has to be separated by a suitable joint

U-AREAS WITH FLOOR PLAN LENGTH

Up to 10 m heated and 15 m unheated:



U-areas in case of intersecting the diagonal line (see red circle) have to be separated by suitable joint. The remaining L-area is to be re-evaluated.

Complex asymmetrical surfaces are to be divided by movement joints so that partial surfaces with geometries as simple as possible are created.

BONDED SCREED

- Bonding screeds can be executed without joints, except for structural joints. Structural joints must be adopted congruently
- Care must be taken to ensure a suitable substrate in accordance with the relevant standards
- Use bonding slurry made of Supermix SE in conjunction with Quickpick high-performance bonding bridge or bonding bridges from the TPOX product range (monolithic)

TERRAZZO (DESIGN) SCREED BURNED FINISH/GRINDED

- Experience has shown that a grading curve 50/50 is suitable for the production of terrazzo (design) screeds with burned finish, whereby the creation of a test area is necessary due to different laying techniques
- Screeds for power troweling (for a burned finish) should have a thickness of ≥ 40 mm, otherwise the screed structure may be destroyed by the troweling machine.
- Due to the high requirements for terrazzo screeds, they must be applied with a mixing ratio of at least 1:5 part by weight (binder/grading curve)