



# SUPER MIX R3

QUICK CEMENT FOR RESIDENTIAL AND INDUSTRIAL CONSTRUCTION

## TECHNICAL DATA SHEET Page 1/2

Supermix R3 is a ternary solid binder and complies with the requirements of the AgBB scheme and the DIBT approval principles. An independent material testing institute tested, certified, and classified the material as harmless to the building environment with emission class A+, and thus as practically emission-free.

Supermix R3 quick cement is reliable and extremely fast drying for residential, commercial, and industrial construction with strength classes up to CT-C50-F7

Optimally suited to produce high-quality screed structures in industrial-, factory- and assembly halls as well as loading ramps and driveways. For all common floor coverings, heated or unheated, on insulating or separation layers. For large-scale renovation work with dynamic or static loads in the bond with extremely rapid useability

For residential construction, as well as screed and concrete design floors, we also recommend our Supermix 2K.



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

- Moisture content 3 days after installation  $\leq 2.0\%$
- Accessible after 24 hours
- Particularly low shrinkage: shrinkage class SW1 ( $< 0,2 \text{ mm/m}$ ) according to DIN 18560-1
- Moisture and weather resistant (waterproof)
- Super quickly coatable- and useable
- For indoor and outdoor applications
- Thin-layer screeds possible in deviation to DIN
- Minimal production downtime due to extremely fast useability
- For large-scale renovation work in the bond

### SUPERMIX R3 / MOISTURE CONTENT 3 DAYS $\leq 2.0 \%$

Recommended dosage (strengths according to DIN EN 13 892-2)					
Days	Compression strength [N/mm <sup>2</sup> ]	Bending tensile strength [N/mm <sup>2</sup> ]	ratio Binder : aggregate	w/b-ratio	material consumption of a 10 mm layer
after 3 days after 28 days	$\geq 20$ $\geq 25$	$\geq 4,0$ $\geq 5,0$	1 : 6 (50 kg : 300 kg)	max. 0,54	ca. 2,5 kg/m <sup>2</sup>
after 3 days after 28 days	$\geq 35$ $\geq 40$	$\geq 5,0$ $\geq 6,0$	1 : 5 (62,5 kg : 300 kg)	max. 0,45	ca. 3,2 kg/m <sup>2</sup>
after 3 days after 28 days	$\geq 45$ $\geq 50$	$\geq 5,5$ $\geq 7,0$	1 : 4 (75 kg : 300 kg)	max. 0,42	ca. 3,8 kg/m <sup>2</sup>

- Ready for covering with coatings and ceramic floor coverings at  $\leq 3 \%$  CM-moisture
- Beginning with the mixing ratio of 1:5, thin-layer heating screeds (type A) with a heating pipe cover of  $\geq 30 \text{ mm}$  can be applied (observe initial test) and an average surface tensile strength of  $1.5 \text{ N/mm}^2$  can be achieved. A mechanical screed surface treatment and adherence to the recommended w/b-value of  $\leq 0.45$  are required to achieve the stated values

### FIELD SIZES AND JOINTS

Due to the excellent shrinkage values of  $\leq 0.1 \text{ mm/m}$ , without thermal influence (underfloor heating, floor-to-ceiling window fronts, direct sunlight, etc.) no joints are necessary from the point of view of the screed. The individual field sizes must be set by the planer depending on the floor covering, whereby the current standards, the state of the art and the manufacturer's information for the respective floor covering must be observed. In the case of separately controllable heated surfaces (heating circuits), normative movement joints must be created according to the standard.

### BUILDING CLIMATE CONDITIONS

The room and substrate temperatures, as well as their raw materials are not allowed to be  $< 5^\circ\text{C}$  and not  $> 30^\circ\text{C}$ . Avoid rain, drafts and direct sunlight during the execution or curing phase. In unfavorable construction site conditions (high rooms, drafts, air blowers, open buildings, etc.), premature drying out must be avoided to prohibit drying cracks by covering with PE-film or Topsicht (spray film which is also ideal for smoothing the surface). Rewetting does not take place under construction site conditions. The readiness for covering is independent of the screed thickness and will also be reached at  $10^\circ\text{C}$  and  $80\%$  rel. humidity.



## 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/mm<sup>2</sup> on average, whereby the smallest individual value must not be less than 1.2 N/mm<sup>2</sup>
- 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 R3-MIXING THE BONDING SLURRY

Place approx. 8-11 liters of water with 500 ml Quickpick in the mixing vessel and mix in one bag of Supermix R3 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](http://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 0.42 and 0.45)
- 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 R3 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.

Our information is based on our current experiences and developments thus we take warranty for the flawless 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 work. We recommend creating a trial area for individual situations. Moreover, our General Terms and Conditions apply. With the publication of this technical data sheet, any previous versions are no longer valid.

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

**Shelf life:** min. 6 months, store protected from sunlight and frost  
**Processing temperature:** from +5 °C to +30 °C