# MC-Floor TurboCem

rapid-set cement for producing dimensionally stable screeds for early overlay

BE SURE. BUILD SURE.

## PRODUCT PROPERTIES

- Ternary speciality binder
- Long open time
- Hardens fast and virtually free of deformation
- Shrinkage class SW1-low shrinkage (< 0.2 mm/m) according to DIN 18560-1
- Fast accessibility
- Rapid coverability / coatability
- Frost-thaw resistant according to DIN CEN/TS 12390-9
- Very low emission according to GEV-EMICODE, categorie EC1$^{PLUS}$
- Registered with DGNB (Code: A6EF94)

## AREAS OF APPLICATION

- Formulation of earth-moist screeds up to grade CT-C50-F7 to EN 13813
- For the installation of quickly coverable screeds
- For the production of stress-free-setting and dimensionally stable screeds.
- Suitable for underfloor heating screeds
- Suitable for wet rooms
- Suitable for indoor and outdoor use

## APPLICATION ADVICE

Substrate preparation for compound screeds

The substrate must be resilient, dry, clean, frost-free and free of dirt, oil, release agent, paints, coatings or other adhesion-reducing substances. As a bond coat, a mixture of MC-Estrifan Additive KD 961 and water (1:3) is mixed with MC-Floor TurboCem to a slurry-like consistency and brushed into the matt-damp substrate. The screed is then installed fresh-in-fresh on the bond coat.

Application Method

MC-Floor TurboCem should be mixed with 0/8 screed sand to create a screed mortar compliant with EN 13813. When adjusting the application consistency, do not exceed a w/c value of 0.45. Make due allowance for the moisture content of the sand! The screed mortar can be prepared and applied with commercially available screed mixers or screed mixer/feed pumps. If there is any stoppage in the work, the mixers, pumps and hoses must be thoroughly cleaned immediately. The screed can be compacted and precision-levelled using standard techniques. The screed should be worked and installed in line with all relevant codes and standards as last amended.

Screed Drying

During drying, the screed must be protected from direct sunlight and draught air. The drying process is influenced by the screed thickness and the ambient conditions. Low temperatures decelerate, high temperatures accelerate the hardening process.

Underfloor Heating Screeds

For heated screeds, the existing underfloor heating can be heated to 20 °C before and during screed installation. The actual room heating function should not be initiated until at least 3 – 4 days after screed installation. In so doing, the feed temperature should be gradually ramped up at a maximum rate of 5 °C per day. After holding the maximum temperature for one day, it must be gradually lowered again by 10 °C per day to the initial temperature.

Further Information

Before any covering or coating, perform a CM measurement to check the residual moisture level. The maximum permissible residual moisture for the respective surface coverings must be observed.
For screed formulations with a mixing ratio of 1:4.3, ceramic coverings and special coating systems from MC-Bauchemie can be applied after just 24 hours.

**The following recipe examples and associated technical values given apply to 200 l mortar mixtures for earth-moist, non-flowing cement screeds according to DIN 18560.**

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## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

| Characteristic | Unit | Value | Comments |
|---|---|---|---|
| Grade | | C50-F7 | |
| Example formulation | kg | 60 | MC-Floor TurboCem |
| | | 300 | Screed sand 0/8 (B8 to DIN 1045-2) |
| | l | ≤ 27 | water; make due allowance for the moisture content of the sand (w/c max. 0.45) |
| Accessible after | hours | 6 | |
| Ready for overlaying after (< 2 CM%) | days | 3 | at 10°C and 80% rel. humidity |
| Mixing ratio | | 1 : 5 | |
| Working time | minutes | > 30 | at 20° C and 50 % rel. humidity |
| Application conditions | °C | ≥ 5 ≤ 30 | air, substrate and material temperatures |
| | % | ≤ 85 | rel. humidity |
| | K | 3 | above dew point |
| Consumption | kg/m²/cm | approx. 3 | related to rapid cement |
| Flexural strength | N/mm² | | |
| 72 h | | > 4 | |
| 28 d | | > 7 | |
| Compressive strength | N/mm² | | |
| 72 h | | > 30 | |
| 28 d | | > 50 | |
| Tensile strength (surface) | N/mm² | | |
| 7 d | N/mm² | ≥ 2 | after substrate preparation by milling/dust-free shot |
| Abrasion resistance per Böhme test | cm³/50 cm² | < 9 | according to DIN EN 13892 |
| Layer thickness | mm | ≥ 25 | for a screed aggregate of 0/8 |

| | |
|---|---|
| Equipment cleaning agent | water |
| Colour | grey |
| Delivery form | 20 kg bag |
| Self-monitoring | EN ISO 9001 |
| Storage | Can be stored in cool and dry conditions for at least 6 months in original unopened packs. Protect from frost. |
| Packaging disposal | Make sure single-use containers are completely empty. |

**Safety instructions**
Please note the safety information and advice given on the packaging labels and safety data sheets. GISCODE : ZP1



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## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

| Characteristic | Unit | Value | Comments |
|---|---|---|---|
| Grade | | C40-F6 | |
| Example formulation | kg | 50 | MC-Floor TurboCem |
| | | 300 | Screed sand 0/8 (B8 to DIN 1045-2) |
| | l | ≤ 22 | water; make due allowance for the moisture content of the sand (w/c max. 0.45) |
| Accessible after | hours | 10 | at 20° C and 50 % rel. humidity |
| Ready for overlaying after (< 2 CM%) | days | < 7 | at 10°C and 80% rel. humidity |
| Mixing ratio | | 1 : 6 | |
| Working time | minutes | > 45 | at 20° C and 50 % rel. humidity |
| Application conditions | °C | ≥ 5 ≤ 30 | air, substrate and material temperatures |
| | % | ≤ 85 | rel. humidity |
| | K | 3 | above dew point |
| Consumption | kg/m²/cm | approx. 2.5 | related to rapid cement |
| Flexural strength | N/mm² | | |
| 72 h | | > 3 | |
| 28 d | | > 6 | |
| Compressive strength | N/mm² | | |
| 72 h | | > 25 | |
| 28 d | | > 40 | |
| Tensile strength | N/mm² | | |
| 7 d | | ≥ 1.5 | surface |
| Abrasion resistance per Böhme test | cm³/50 cm² | < 9 | according to DIN EN 13892 |
| Layer thickness | mm | ≥ 25 | for a screed aggregate of 0/8 |

| | |
|---|---|
| Equipment cleaning agent | water |
| Colour | grey |
| Delivery form | 20 kg bag |
| Self-monitoring | EN ISO 9001 |
| Storage | Can be stored in cool and dry conditions for at least 6.0 months in original unopened packs. Protect from frost. |
| Packaging disposal | Make sure single-use containers are completely empty. |

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## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

| Characteristic | Unit | Value | Comments |
|---|---|---|---|
| Grade | | C30-F5 | |
| Example formulation | kg | 40 | MC-Floor TurboCem |
| | | 300 | Screed sand 0/8 (B8 to DIN 1045-2) |
| | l | < 18 | water; make due allowance for the moisture content of the sand (w/c max. 0.45) |
| Accessible after | hours | 12 | at 20° C and 50 % rel. humidity |
| Ready for overlaying after (< 2 CM%) | days | < 14 | at 10°C and 80% rel. humidity |
| Mixing ratio | | 1 : 7.5 | |
| Working time | minutes | > 45 | at 20° C and 50 % rel. humidity |
| Application conditions | °C | ≥ 5 ≤ 30 | air, substrate and material temperatures |
| | % | ≤ 85 | rel. humidity |
| | K | 3 | above dew point |
| Consumption | kg/m²/cm | approx. 2 | related to rapid cement |
| Flexural strength | N/mm² | | |
| 72 h | | > 3 | |
| 28 d | | > 5 | |
| Compressive strength | N/mm² | | |
| 72 h | | > 15 | |
| 28 d | | > 30 | |
| Tensile strength | N/mm² | | |
| 7 d | | ≥ 1.2 | surface |
| Layer thickness | mm | ≥ 25 | for a screed aggregate of 0/8 |

| | |
|---|---|
| Equipment cleaning agent | water |
| Colour | grey |
| Delivery form | 20 kg bag |
| Self-monitoring | EN ISO 9001 |
| Storage | Can be stored in cool and dry conditions for at least 6.0 months in original unopened packs. Protect from frost. |
| Packaging disposal | Make sure single-use containers are completely empty. |

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