ZEB

Cement screed binder

strasser BASE
SCREEDS

fibre-reinforced, rapid-hardening screed binder

- can be walked on after approx. 8 hours
- ready for laying ceramic surfaces after approx. 3 days

Seal:

Is included in the following systems:

Applications

- For the economical production of early ready-to-use heated and unheated screeds in bond, on insulation or separating layers in accordance with DIN 18560.
- for the production of high-strength screed constructions.
- Mixing ratio 1:5 to 1:3, depending on the desired strength (see mixing table).
- grain size 0 – 4 mm / 0 – 8 mm, grading curve A/B
- for interior and external use

Properties

- very low emissions EC 1^{PLUS} according to GEV-EMICODE
- rapid hardening
- Early access and occupancy
- long processing time
- shrinkage-compensated
- cementitious
- high strength adjustable
- low tension
- suitable for pumping
- frost-resistant and water-resistant after hardening
- mineral
- fibre-reinforced

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Composition

- cement in accordance with DIN EN 197-1
- additives for regulating and improving workability and product properties

Substrate

Properties/tests

- The subsurface must be dry, load-bearing, clean, frost-free and suitable for the application of mortar.
- Concrete substrates for composite screeds must be at least 6 months old.

Pretreatment

- Expansion, movement, building separation or connection joints already present in the subsurface must be applied in the same arrangement throughout the entire cross-section of the system.
- Connection joints, connections to rising building components or penetrations must be professionally formed with a suitable edge insulation strip.
- **For screeds on insulation layers (heated and unheated):**
  Insulation layers must be laid professionally, with offset joints to each other and free of cavities.
  Insulation layers must be suitable and sufficiently dimensioned for the application and subsequent use.
  Insulation layers must be covered with a suitable separating layer, e.g. PE foil.
  Separation layers must be laid “wrinkle-free” and with a joint overlap of at least 10 cm.
  For heated constructions, the underfloor heating system must be suitable and sufficiently dimensioned for the application and subsequent use.
  In heated constructions, the underfloor heating system must have been installed professionally. The leak test must be carried out in advance.
  In heated constructions, sufficient measuring points must be marked by measuring points for the subsequent taking of samples (see TKB leaflet 16, Recognised rules of technology for CM measurement).
- **For screeds on a separating layer:**
  Suitable separating layers, such as PE foil, must be used. Separation layers must be laid “crease-free” and with a joint overlap of at least 10 cm.
- **For bonded screeds:**
  The substrate must be carefully cleaned. Adhesion-reducing layers, e.g. mortar residues or binder accumulations, must be removed mechanically in advance if necessary.
  Coarse defects in the substrate must be levelled out in advance by suitable measures.
  Absorbent substrates must be provided in advance with a suitable bonding agent, e.g. quick-mix H4 bonding agent.
  Non-absorbent substrates must be pretreated with e.g. strasser PRIM EG epoxy primer and sprinkled with e.g. strasser PLUS GQS coarse quartz sand over the entire surface.

Processing

Temperature

- Do not process or allow to dry out at air, material or substrate temperatures below +5°C, or if there is a risk of exposure to night frost, or at temperatures above +30°C, or in direct sunlight, or on heated up surfaces, and/or in windy conditions.

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Mixing / Preparation / Processing

- Only use aggregates according to DIN EN 13129 in an A/B grading curve and a grain size of 0-4 mm or 0-8 mm for the production of the screed mortar. Deviating grading curves or grain sizes can have a negative influence on the compressive and flexural strengths as well as the drying behaviour.
- Take the mixing ratio from the mixing table according to the desired strength class.
- Prepare screed mortar in a free-fall mixer, compulsory mixer or screed machine and feed pump from the product strasser BASE ZEB cement screed binder and the aggregate in the required mixing ratio with the addition of clean tap water.
- Adjust screed mortar to earth-moist working consistency; the water requirement depends on the moisture content of the aggregate. Adding excess water can negatively influence the compressive and flexural strengths as well as the drying behaviour of the screed.
- Do not mix with other products and/or foreign substances such as fibres or cements.
- The screed quality must be verified by the contractor through the confirmation test of DIN EN 13813.

Applying

- Screed work is carried out in accordance with DIN ATV 18353 “Estricharbeiten” and DIN 18560 “Estrichiche im Bauwesen”.
- When processing as a composite screed, firstly brush on quick-mix H4 bonding bridge onto the pre-wet, still matt damp concrete surface.
- Apply the screed mortar into the bonding bridge directly afterwards “wet-in-wet” in the required layer thickness.
- For the subsequent laying of ceramic tiles, rub the surface of the screed (do not smooth).
- The minimum layer thickness is 25 mm for composite screeds, 45 mm for screeds on insulation and 35 mm on a separating layer. The screed thickness can be reduced by 5 mm with insulating layer thicknesses ≤ 40 mm.
- For screeds on insulation from bending tensile strength class F5, the minimum layer thickness is 40 mm. For insulation thicknesses ≤ 40 mm, the screed thickness can be reduced by 5 mm.

Processing / Working time

- approx. 3 hours
- Mortar that has already started to harden must never be thinned down with additional water, remixed or applied.
- The stated times apply for a temperature of +20°C and relative humidity of 65%.

Drying / Hardening

- Protect the fresh mortar from drying out too quickly and from unfavourable weather conditions such as frost, draughts, direct sunlight and direct exposure to driving rain if necessary by hanging with foil.
- The drying and hardening process will be slowed down by low temperatures and/or high air humidity and accelerated by high temperatures and/or low air humidity.

Subsequent coating / Suitability for coating

- The readiness for covering with ceramic tiles and slabs, natural and concrete bricks, bonded waterproofing as well as levelling fillers and compounds is achieved at a residual moisture of ≤ 3.5 CM-% (unheated) and ≤ 2.5 CM-% (heated).
- The residual moisture must be determined using the CM method according to DIN 18560 “Estrichiche im Bauwesen” with a weighed-in quantity of 50 g.
- In the case of heated constructions, the heating of the floor covering must be carried out and completed in accordance with the strasser heating protocol prior to the installation of ceramic tiles and slabs, natural and artificial stones, bonded waterproofing as well as levelling fillers and compounds. Heating according to the strasser heating protocol can be started at the earliest 3 days after completion of the screed work.
- The floor is ready for covering with textile, vapour diffusion-tight and vapour diffusion-open coverings, wood-based materials such as parquet or laminate, whether laid floating or firmly bonded, as well as coatings of any kind, as soon as the minimum residual moisture required by the covering manufacturer as well as the adhesive manufacturer has been reached and, if applicable, the strasser occupational heating protocol has been carried out and completed.

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Cleaning the tools
- Clean all tools and equipment with water immediately after use.

Notes
- The following regulations and standards apply to the execution: DIN 18560 “Screeds in construction”; DIN ATV 18353 “Screed work”; EN 13813 “Screed mortar”.
- When using as a heated screed, the screed is heated up at the earliest 3 days after installation of the screed.

Packaging

- 25 kg/sack

Storage

- Store sacks appropriately and in dry conditions on pallets.
- can be stored in sealed original container/bag for at least 12 months from manufacturing date

Consumption

- Consumption: depending on mixing ratio

Technical Data

Bulk density	approx. 1100 – 1200 kg/m³
Behaviour in fire	A1 (non-flammable) in accordance with EN 13501
workable time	approx. 3 hours
Can be walked on after	after approx. 8 hours
Ready for laying ceramic coverings	after approx. 3 days (unheated, after previous CM measurement) after approx. 3 days (heated, according to strasser heating protocol).

Note: The above details relate to ready-mixed mortar made with this product according to the mixing specifications. All data are average values which have been obtained under laboratory conditions in accordance with relevant test standards and application trials at +20°C and 65% relative humidity. Deviations are possible under practical conditions.

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Safety and disposal instructions

Safety

- This product produces an alkaline reaction when it comes into contact with moisture/water. Therefore ensure that skin and eyes are protected. If it should come into contact with the skin or eyes, rinse them thoroughly with water. See a doctor immediately if it comes into contact with the eyes.
- Further instructions in the safety data sheet under www.strasser-systeme.de.

GISCODE

- ZP1 (products containing cement, low-chromate)

Disposal

- Dispose of the material in accordance with the official regulations.
- Completely empty and recycle the packaging.
- Dispose of hardened product in accordance with the local regulations. Do not allow to enter the sewer system. Dispose of the hardened product in the same way as concrete waste and slurries. Waste code according to the Ordinance on the European Waste Catalogue depending on the origin: 17 01 01 (concrete) or 10 13 14 (concretewaste and concrete slurries).

General Information

This information sheet provides only general recommendations. If you have any questions when it comes to the actual application, please consult our responsible Technical Sales Adviser or our Service Hotline tel. +49 541 601-601. Since natural raw materials are used, the values and properties described may vary somewhat. All of the details given are based on our current knowledge and experience and on the assumption that the materials are professionally applied and used for their normal purpose. All of the details are non-binding and do not release users from their duty to undertake their own tests to ensure suitability for the intended application. Due to the effects of different weather, processing and construction site conditions, no guarantee can be given for the general validity of all details. We reserve the right to make changes as a result of further development of the product and applications engineering. The general rules for construction engineering, the valid standards and guidelines, and the technical working guidelines must be observed. The publication of this technical data sheet renders all previous editions of this data sheet void. Please obtain the latest information from our website.

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