

Powerscreed Rapid

high-performance hardening accelerator for cement screeds, enabling easy application and fast drying



PRODUCT PROPERTIES

- Accelerates drying/hardening
- High reductions in water usage possible
- Active acceleration of the hydration phases
- Increases both early and final strength values
- Restricts shrinkage
- Consistently good application properties, even at low w/c values
- No stickiness, even when sanding with a high fines content
- Good consistency retention over the full duration of the laying time
- Good smoothing behaviour, no bleeding

AREAS OF APPLICATION

- For producing screeds for fast walk-on accessibility and early covering
- Particularly suitable for underfloor heating screeds (heatable after 72 hours)

APPLICATION ADVICE

Dosage

The optimal dosage level for Powerscreed rapid depends on the origin, composition and moisture content of the aggregates as well as the type of cement used. The ideal dosage will therefore need to be determined in prior trials using the relevant aggregates and cements. The technical properties of the screed mortar and its workability can also be assessed within the scope of this suitability test. If changes are made to the screed formulation, the uniformity of the properties of the screed mortar will need to be reassessed.

Application Method

Powerscreed rapid is added directly to the screed mixture in the first make-up water. Once all the components have been added, a further mixing time of at least one minute must be ensured.

Powerscreed rapid usually has no significant influence on the open time of the screed mortar.

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, high humidity, undried walls, ceilings and floors, change of dew point, lack of ground waterproofing/dampproof course, and plastering and painting work can all lead to delayed drying, despite the presence of the accelerator. Regular ventilation with fresh air is recommended to support the drying process and enable escape of the high volume of moisture that ensues.

Covering the screed surface (with sheeting, boards etc.) will extend the drying time.

Underfloor Heating Screeds

For heated screeds, the existing underfloor heating can be heated to 20 °C before and during screed installation. The actual 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 to the initial temperature (see heating protocol).

Further Information

Stir or shake vigorously prior to use. Lengthy standstills can lead to sedimentation. Please note the information provided in the specification sheet "General Application Instructions for Powerscreed" and the Safety Data Sheet.

TECHNICAL VALUES & PRODUCT CHARACTERISTICS

| Characteristic | Unit | Value | Comments |
|--|-------------------|--------------|---|
| Density | g/cm ³ | approx. 1.11 | |
| Dosage recommendation | ml | 500 | per 50 kg cement |
| Example formulation (DIN EN 13813-CT-C35-F5) | kg | 50 | CEM I 42.5 N |
| | kg | 300 | Screed sand 0/8 (B8 to DIN 1045-2) |
| | l | approx. 17.5 | water depending on the moisture content and sieve grading of the sand |
| | l | 0.5 | Powerscreed Rapid |
| Example formulation (DIN EN 13813-CT-C40-F6) | kg | 62.5 | CEM I 42.5 N |
| | kg | 300 | Screed sand 0/8 (B8 to DIN 1045-2) |
| | l | approx. 17.5 | water depending on the moisture content and sieve grading of the sand |
| | l | 0.5 | Powerscreed Rapid |
| Example formulation (DIN EN 13813-CT-C50-F7) | kg | 75 | CEM I 32.5 R |
| | kg | 300 | Screed sand 0/8 (B8 to DIN 1045-2) |
| | l | approx. 19.5 | water depending on the moisture content and sieve grading of the sand |
| | l | 0.5 | Powerscreed Rapid |
| Example formulation (production of a bonding slurry; B > 1.5 N/mm ²) | kg | 25 | CEM I 42.5 N |
| | l | 0.15 | Powerscreed Rapid |
| | l | ≤ 10 | water |
| Recommended dosage range | ml | approx. 500 | per 50 kg cement |

All technical values are laboratory results determined at 21°C ±2°C and 50% relative humidity.

| | |
|-------------------------------|---|
| Self-monitoring | EN ISO 9001 |
| Packaging disposal | Make sure single-use containers are completely empty. |
| Equipment cleaning agent | water |
| Designation of admixture | Powerscreed Rapid |
| Colour | milky-transparent |
| Form | liquid |
| In-company production control | EN ISO 9001 |
| Delivery form | 10 kg canister(s) |
| Storage | Can be stored in cool (below 20°C) and dry conditions for 12 months in original unopened packs. Protect from frost. |

Safety instructions

Please note the safety information and advice given on the packaging labels and safety data sheets.

Note: The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by MC's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2300018491]