

## Hydraulically setting grouting concretes and grouting mortars

### APPLICATION ADVICE

**Substrate preparation:** The substrate must be prepared in accordance with EN 1504-10, section 7. Remove adhesion-reducing contaminants such as grease, oil, dust and cement slurry. Destroyed or damaged areas must be removed until load-bearing concrete is restored.

For repair projects, the substrate must be prepared using suitable methods (e.g. blasting with solid agents) until a load-bearing grain structure is achieved. Sufficient tear-off strength (generally  $\geq 1.5 \text{ N/mm}^2$ , KEW  $\geq 1.0 \text{ N/mm}^2$ ) of the substrate must be ensured.

**Pre-wetting:** The concrete substrate must be thoroughly and sufficiently pre-wetted. Any excess water must be completely removed so that the substrate is matt-moist at the time of casting.

**Formwork:** Non-absorbent formwork panels are used as formwork. These must be pretreated with concrete release agents from the Ortolan range. Please refer to our general processing instructions for Ortolan concrete release agents.

**Mixing:** Grouting concrete and grouting mortar are mixed using a compulsory mixer or a slow-speed mixer (max. 400 rpm), whereby the mixing time must not be less than 3 minutes (mixing principle 3-1-1). Exceptions to this are lightning-fast grouting products, for which no maturing time and a maximum mixing time of 3 minutes are specified. The grouting concrete and grouting mortar is mixed lump-free in the specified amount of water (except for a residual amount) for approx. 3 minutes. The remaining water is then added and mixed for a further **minute** until homogeneous. The emulsion products require a certain maturing time to deaerate. After this, they must be mixed for a further **minute**. Only complete bags/big bags may be mixed.

Emckrete products are mixed with suitable concrete mixing equipment and pumped with screw pumps designed for continuous mixing. Equipment trials should be considered to ensure that the product can be mixed and pumped appropriately. Please refer to the recommendations in our Emckrete equipment planner and ask for our advice.

**Installation:** Immediately after mixing, the grouting concrete and grouting mortar are installed without interruption. To avoid air pockets, pour continuously from one side only. In order to support the flow process and avoid layer-by-layer installation, poking with a wire loop is used to help.

During installation and for the first few hours after pouring the grouting concrete and grouting mortar, avoid strong vibrations and shocks in the vicinity of the installation site.

**Curing:** The setting and hardening process of grouting concretes and grouting mortars is associated with a greater or lesser degree of heat development, depending on the installation thickness. Suitable measures must be taken in good time to prevent the grouting concrete and grouting mortar from drying out too quickly (risk of cracking!).

After Emckrete products have been poured, the exposed surfaces must be immediately protected against water extraction. Suitable post-treatment measures are, for example, fogging, water spray film covers with jute sheets, thermo films or moisturising cover sheets as well as Emcoril curing agents. If the formwork is too high, we recommend adding water to the dried, matt damp surface up to the top edge of the formwork. The post-treatment period is at least 5 days.

**Note:** All technical information in the data sheets is based on laboratory tests. Actual measured values may deviate in practice.

Grouting concretes and grouting mortars are suitable for grouting galvanised steel components indoors. In outdoor areas, care must be

taken to avoid direct access of moisture to the interface between the galvanised installation part and the potting product.

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**Note:** The information in this data sheet must be adapted by the installer, specialist planner, and/or building inspector to the respective construction project, intended use, and specific local conditions. Any non-standard local conditions must be taken into account, and application-specific conditions must be reviewed in advance by the planner/specifier. Deviations from the specified standard conditions 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. [2500026568]