



Emcekrete

Ready to use, free flow, high strength, non-shrink grout

Product Properties

- **Emcekrete** guarantees a permanent, reliable connection and bond between machine bases and the foundation of structure.
- Good pourability and flowability inspite of very small amount of water added
- High initial & final strengths
- Because of low air entrainment **Emcekrete** forms very dense grout.
- Excellent bonding strength which prevents detachment from substrates.
- **Emcekrete** does not shrink
- High dimensional stability
- The change of volume and shape after the loading is negligible
- **Emcekrete** is free from harmful chlorides and other aggressive constituents. Adjacent steel areas are permanently protected against corrosion

Areas of Application

- For grouting machine foundation
- Bridge bearing etc
- For encasing steel in concrete

Application Notes

General

In every industry there are machines, equipment or steel structural elements that must be firmly connected to foundations or existing structures. The resulting static and dynamic loads should be transferred in such a way as to guarantee a stable and permanent connection. To solve this problem optimally, one has to sufficiently know and consider mechanical needs and constructional possibilities. The development of **Emcekrete** fully meets these requirements.

The machinery, equipment etc. to be erected are to be connected with the load bearing concrete or brickwork in such a way that:

- Loads and forces of various kind are transferred.
- The connection can be utilized in a reasonably short time
- A reasonably firm and corrosion-protected connection is obtained in those areas which are no longer accessible later.

While erecting machinery, equipment etc., the first two requirements are easy to meet, for instance, if steel bedplates are concreted in RCC construction or if supporting girders are built in the steel skeleton construction to which the assembly parts are connected by bolts or by welding. The third requirement will also in this case make it necessary to concrete the assembly parts.

If, however, the apparatus or machines cannot be fastened to such bedplates or steel girders, they must be connected with the foundation by means of anchor bolts, which are mounted in the respective recesses in the concrete and then filled up, by grouting under a suitable base plate. This grouting must be compatible with the specific properties of the material described below and must ensure a permanent and frictional connection between the machine to be mounted and its foundation. It must also bear the static and dynamic forces.

Emcekrete is specially formulated to meet the requirements described above, owing to the selection of particularly suitable polymer binders and chosen aggregates.

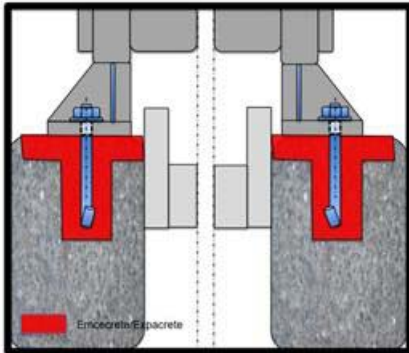
Instructions for Use

To make optimal use of the good properties of **Emcekrete**, the following instructions are to be strictly observed.

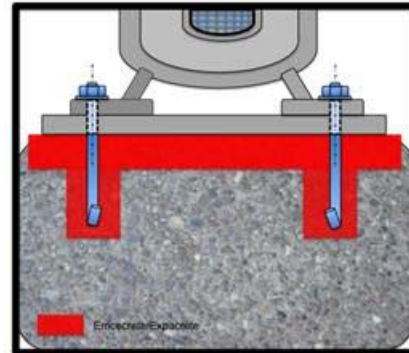
- a. Before the machines are erected, all kinds of contaminations like fat, oil, dust, etc. are to be removed and the concrete base surface must be thoroughly wetted
- b. After the machine has been adjusted, tight shuttering has to be made before the concrete is placed. The shuttering shall extend at least 5 cm above the bottom edge of machine.
- c. For normal grouting work of thickness up to 5 cm use **Emcekrete** directly. For thickness over 5 cm, **Emcekrete** can be mixed with clean and dry quartz aggregate of suitable graded grain size. Mixing Ratio is 1x30kg sack **Emcekrete** + 4.2 to 4.5 Liters water to get 15 Liters Mix.
- d. Air pockets are to be avoided. Pour from one side only. **Emcekrete** can also be pumped
- e. While placing **Emcekrete** and upto approximately 2 hours thereafter, strong vibrations of any kind should be avoided.
- f. The relevant instructions of the machine manufacturer have to be followed. It is necessary to wait until the grout is sufficiently hard.
- g. Never mix more **Emcekrete** than can be placed within a period of 30 minutes.
- h. High temperatures accelerate hardening while low temperatures have a retarding effect. If the temperature is below + 5°C make sure that the grout as well as the contact areas are heated upto a temperature of + 20°C.
- i. Exposed surfaces of **Emcekrete** should be cured like concrete in order to avoid a premature evaporation of the water. It is advisable to spray **Emcoril** Curing Compound on the newly placed grout.
- j. Strengths of cement based products are slightly lowered after 6 months of storage, or if stored improperly.

Further Instructions / Precautions

Application Examples



Application Examples



Technical Data For Emcecrete

Characteristic	Unit	Value	Comments
Mixing ratio	% water by weight of powder	14 to 15	
Density	Kg / m ³	≈ 2.24	For ready mixed mortar
Compressive Strength	Kg / cm ²	28 day : 750	Approx. Value. Test as per DIN on 40 x 40 x 160 mm Prisms
Flexural Strength	Kg / cm ²	28 day : 101	Approx. Value. Test as per DIN on 40 x 40 x 160 mm Prisms
Pull out bond Strength	Kg / cm ²	12mm Φ rods : 6.6 28mmΦ rods : 3.4	Failure in steel Failure in concrete
Maximum processing time	minutes	30	
Change in volume	%	1.84	After 1,7 & 28 days

Product Characteristics for Emcecrete

Type of Product	Free flow, non-shrink grout
Form	Powder
Colour	Grey
Shelf Life	6 Months from date of Manufacture
Delivery	30 kg sacks
Storage	In Unopened Packaging. Protect from Rain, Direct Sunlight, Heat and Frost
Disposal	Empty packs completely and dispose off carefully to protect our Environment

Note: The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees, which may differ from the data contained in our information sheets, are only binding if given in written form. The accepted engineering rules must be observed at all times. E. & O.E.

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