



Emcekrete® 90 DS

Hydraulically setting, high strength, Dual-Shrinkage compensation grout

Product Properties

- **Emcekrete® 90DS** guarantees a permanent, reliable connection and bond between machine bases and the foundation of structure
- Good pourability and flowability even at low water – powder ratio
- High early and final strength
- Suitable for grouting height up to 150 mm
- **Emcekrete® 90 DS** Provides Good Dynamic Load Resistance.
- **Emcekrete® 90 DS** Provides Dual Shrinkage compensation as per ASTM C -1107 Grade C.
- Ready to use – Simply Mix with Water
- Certified as anchoring product acc to EN 1504-6
- **Emcekrete® 90 DS** is free from harmful chlorides and other aggressive constituents. Adjacent steel areas are permanently protected against corrosion.

Areas of Application

- Grouting of rigid joints e.g. between pre-cast elements or between pre-cast elements and in-situ concrete
- Grouting of power station equipment and machine foundations, which are subjected to high vibrations, for ex wind turbine foundations, generators, compressors and engines.
- Grouting for anchor screws, fixing and base plates, steel and concrete supports, bridge bearings and crane rails.
- Grouting of Steel constructions, fastening bolts and steel elements in concrete.
- Suitable exposure classes acc to DIN 1045-2/EN 206-1/EN-1992-1: XO, XC1-XC4, XD1-XD3, XS1-XS3, XF1-XF4, XA1-XA3
- Suitable moisture classes due to alkali-silica reaction: WO, WF, WA

Application Notes

Substrate Preparation

The Substrates for grouting must be free from oil, grease or any other unsound material. Cleaning should be done by means of Hydraulic Water blasting or similar means till achieving a durable sound surface. The surface must be wetted for 24 hours for achieving saturated surface prior to grouting. Please Take into consideration the advices written on the "General Application Advice "for hydraulically setting grouts.

Form work

Must be Rigid and leak-proof. The form work should be strong enough to provide suitable support for flowing and water tightness and prevent the grout matrix from budging. The shoulder length should be maintaining 50mm to 70mm.

Mixing

Emcekrete® 90 DS is ready to use only water with recommended quantity need to be added. To get better workability it is recommended to use mechanical mixture for mixing and the Temperature of water to be added should be 25° C. During mixing of Water in grout 1st add 75% of the water and mix for 2-3 min, then add rest 25% of water and mix for 2 - 3 min to get better flow and workability. Grouting should be done immediately thereafter.

Mounting

The grout needs to be applied immediately after mixing. Pouring of the grout should be continuous and from one side to avoid any air entrapment. For the large area grouting, the grouting should be done from the middle by help of pipe or funnel or any suitable lunning platform.

For any Mechanical Baseplate grouting it is advisable to grout the anchor bolt pockets fast. Then grouting under the base plate is recommended. Please Take into consideration the advices written on the "General Application Advice "for hydraulically setting grouts.

During application and with in the fast few hours after pouring, strong vibrations and shocks near the grout area must be avoided

Curing

Depending on the grout thickness the curing process of grouts is accompanied by more or less intensive heat development. Accelerated drying of the grout must be counteracted with suitable measures. If a high sided mould is being used, we recommend pouring water onto the partially dried, matt-moist surface up to the level of mould edge.

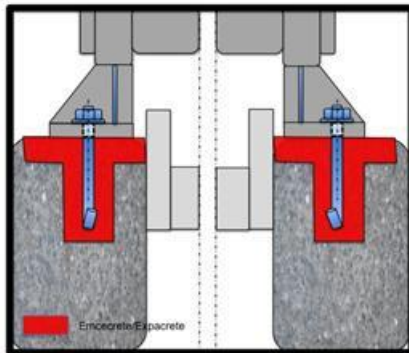
Grouts Can usually be De-Moulded approx. 24 hours after pouring. After this period the strength development has proceeded far enough to allow post tensioning bracing to be loaded. In the case of intensive sun and draft exposure, protection of the De-Moulded grout sides with a Curing compound like **Emcoril AC** can be recommended.

Notice

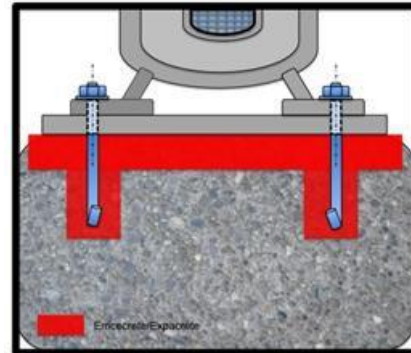
Grouts are suitable for the grouting of Galvanized steel elements in interior spaces. When using outdoors, prevent the contact area between the galvanized elements and the grout from coming into contact with water.

Further Instructions / Precautions

Application Example



Application Example



Technical Data for Emcecrete® 90DS

Characteristic	Unit	Value*	Comments
Type		Grouting mortar	
Grain Size	mm	0 - 3	
Grouting Height	mm	20 - 150	
Added Water	Liter %	3,3-3,5 11-11,5%	Per 30 kg Bag
Flow	mm	≥ 600	As per EN 13395-2
Early expansion	%	1,0-1,5	As per ASTM C940
Expansion	%	0,1	As per ASTM C 157 at 28 Days
Compressive Strength	N/mm ²	25 75 90	After 24 hours, as per ASTM C 109 (50mm Cube) After 7 Days, as per ASTM C 109 (50mm Cube) After 28 Days, as per ASTM C 109 (50mm Cube)
Early Strength Class		A	≥ 40 N/mm ² after 24 hours
Application Time	Minutes	60 / 45 / 30	At +5° C / +20° C / +35° C
Processing Conditions	°C	≥+5 to ≤+35	Air and substrate temperature
Yield	liter	14,5	Per 30 kg Bag
Wet Gross Density	Kg/m ³	2300	

*All the technical Values were determined in laboratory, at a temperature of 20°C and 65% relative humidity

Product Characteristics for Emcecrete® 90DS

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

Safety Advice

Please Take notice of the safety information and advice given on the packaging labels, safety information sheets and General Application Advice.

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 differ from the data contained in our information sheets are binding if given in written form. The accepted engineering rules must be observed at all times.

Edition: - MC/IND/190611, Some Technical Changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.