



Emcekrete HP

High Performance, Shrinkage Compensated Cementitious Grout

Product Properties

- 2-stage shrinkage compensated
- Rapid strength development
- High ultimate strength
- Chloride free
- Excellent flowability
- Adjustable consistency
- Can be blended with chippings

Areas of Application

- Concrete repairs
- Beam and column enlargements
- Concrete anchors
- Column bases
- Bridge bearings
- Machine foundations
- Cavities

Application

Surface treatment

Surfaces to be grouted shall be clean and free from oil, dust and unsound material and contaminants. All absorbent surfaces such as formwork or pre-packed aggregate shall be thoroughly wetted but free of surface water before grouting work commences.

For pressure grouting situation, check that formwork is properly constructed and sealed to prevent loss of grout pressure.

Mixing

Pour about 80% of the premeasured clean water (please refer to the Mixing Ratio for desired consistency) into a clean container and gradually add Emcekrete HP while mixing with a slow speed drill (400-500rpm). Add the remaining amount of water gradually as required until correct consistency is achieved.

Mix materials for 2 to 3 minutes until grout becomes homogeneous. Then stir the grout for several seconds to release trapped air before placing it immediately.

Placement and Curing

Once mixed, grout shall be placed within 25 minutes to maintain best flow characteristics.

For free pouring situations, pour sequence must be planned to ensure continuous unidirectional flow to prevent formation of trapped air pockets within the grout mass.

A minimum head of 150 mm is recommended for all free pour placement of grout. The usage of air vents and chains to assist grout flow is recommended.

When pour section exceeds 75 mm in thickness, it is recommended that clean single size (minimum 10 mm) aggregate be packed in the void to better distribute the hydration energy of the grout. In such cases, the weight ratio of aggregate to grout shall not exceed 1:1.

Curing

If formwork is used, leave the formwork in place for at least 3 days. After removing the formwork, cure the surface immediately with curing compound, Master CurePlus GP or other approved methods.

**Mixing Ratio for Emckrete HP**

Application	Consistency	Water Dosage [litre/25 kg bag]	Average Yield [m³]
Anchor Bolt	Trowelable to Pourable	3.5 to 4.0	0.0126
Base plate / Machine base	Pourable to Flowable	4.0 to 4.4	0.0133
Pre-packed / Pressure	Flowable	4.5 to 4.8	0.0136

Technical Data for Emckrete HP

Characteristics	Unit	Value		Comments
Aggregate Size	mm	< 1.2		
Fresh Mortar Density	kg/dm³	2.0 - 2.2		
Compressive Strength (BS 1881: Part 116)	N/mm²	<u>Trowelable</u>	<u>Flowable</u>	
		~ 40	~ 40	1 day
		~ 50	~ 50	3 days
		~ 60	~ 55	7 days
		~ 60	~ 55	14 days
		~ 65	~ 60	28 days
Flexural Strength (BS 1881 : Part 118)	N/mm²	<u>Flowable</u>		
		~ 14.5 ~ 19.0		7 days 28 days
Bleeding (ASTM C940)	%	0		after 3 hours
Expansion (ASTM C940)	%	~ 0.10		3 days
Flow (BS cone)	mm	260		
Initial Setting Time (ASTM 191)	hrs:min	<u>Trowelable</u>	<u>Flowable</u>	at 22°C
		~ 4:30	~ 5:00	
Pot Life	min	~ 45		

Product Characteristics for Emckrete HP

Packaging	25 kg bag
Storage	Can be stored in shaded, cool and dry conditions for 6 months in original unopened packs.
Disposal	In the interest of the environment, please empty all bags completely and dispose of in accordance with statutory regulations.

Safety Advice

Please take notice of the safety information and advice given on the packaging labels and safety information sheets.

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 only binding if given in written form. The accepted engineering rules must be observed at all times.

Edition 11/15. 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.