Emcekrete BCG-HP

High Early Strength, Shrinkage Compensated Cementitious Grout

Product Properties

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

Areas of Application

- Concrete repairs
- Beam and column enlargements
- Rock bolt and anchors
- Column bases
- Bridge bearings
- Machine foundations
- Cavities from top down construction

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 2.8 kg of the premeasured clean water into a clean container and gradually add 20 kg Emcekrete BCG-HP while mixing with a slow speed drill (400-500rpm). If necessary, an additional amount of water can be added gradually as required while mixing continuously to get the desired consistency. Do not exceed the recommended maximum water dosage of 3.00 kg per 20 kg bag of Emcekrete BCG-HP

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 30 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 1 days. After removing the formwork, cure the surface immediately with curing compound or other approved methods.

Technical Data for Emcekrete BCG-HP

Characteristics	Unit	Value	Comments
Aggregate Size	mm	≤ 1.0	
Fresh grout Density	kg/dm³	2.1	
Compressive Strength (BS 1881: Part 116)	N/mm²	42 70 95	1 day 7 days 28 days
Bleeding (ASTM C940)	%	0	after 3 hours
Expansion (ASTM C940)	%	0.2	after 24 hours
Flow Spread test (ASTM C1437 cone)	mm mm	300 280	fresh after 30 minutes
Initial Setting Time (ASTM 191)	min	~ 90	at 22ºC
Yield	litres	~ 11.1	per 20kg bag
Water Dosage	litres	2.8 – 3.0	per 20kg bag

Product Characteristics for Emcekrete BCG-HP

Packaging	20 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 observe 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 11/21. 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.