BE SURE. BUILD SURE.

Emcekrete CR 80

High performance, shrinkage compensated micro-concrete

Product Properties

- 2-stage shrinkage compensated
- Rapid strength development
- High ultimate strength
- Chloride free
- Excellent workability with high flowability
- Adjustable consistency

Areas of Application

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

Application

General

Emcekrete CR 80 is a special blend of low heat cement with proprietary additives, super-plasticizers and graded aggregates. It is ideal for concrete repair situations where there is little or no access for compaction.

Surface Treatment

Surfaces to receive Emcekrete CR 80 shall be clean and free from laitance, oil, dust and unsound material and any contaminant which may affect adhesion.

For best adhesion, use high-pressure water jetting or granulate blasting to expose aggregates.

All absorbent surfaces such as formwork shall be thoroughly wetted but free of surface water before placement work begins.

Formwork and Application

As Emcekrete CR 80 is a high flow material, all formwork must be tightly sealed and leak-proof to prevent loss of cement grout during placement of material. However, provisions must be made for outlets to drain away water used for pre-wetting the substrate.

Mixing

Pour about 80% of the recommended dosage of water into a clean container and gradually add Emcekrete CR 80 while mixing with a slow speed drill (400-500rpm). Add the remaining amount of water only as required until correct consistency is achieved. Mix materials for 3-5 minutes until material becomes homogeneous.

For best results, let material stand for 1-2 minutes before stirring lightly with a paddle to release entrapped air.

Placement

Free falling of material shall be reduced to less than 1m and placement shall be uni-directional to optimize compaction. Emcekrete CR 80 shall be casted to de-aerate through an external channel or throughout the length of the cast section. For formwork placement, pump the material in through the lowest point. Avoid air entrapment to ensure full contact with the substrate. For large section placements, plan material preparation to maintain continuous flow throughout.

No external mechanical vibration shall be used. Where constrictions are present due to formwork or rebars, flow may be assisted by manual light tamping.

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 compounds Master CurePlus GP or other approved methods.

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Technical Data for Emcekrete CR 80

Characteristics	Unit	Value	Comments
Chipping Size	mm	<10	
Fresh Mortar Density	kg/dm³	2.2 – 2.3	
Compressive Strength (BS 1881 : Part 116)	N/mm²	~45.0	1 day
		~60.0	2 days
		~70.0	7 days
		~75.0	14 days
		~80.0	28 days
Water Absorption @ 28 days (BS 1881 : Part 122)	%	<1.7	
Initial Surface Absorption @ 28 days (BS 1881 : Part 208)	ml/m²/sec	<0.015	
Slump Flow (Abrams cone)	mm	>750	Fresh, Class SF2 : 660 -750
Viscosity (T_{500})	seconds	>2.0	Class VS2 : > 2.0 seconds
Slump Flow (J- Ring with 16 rebars)	mm	>680	fresh
		>640	after 1 hour
Segregation Resistance (Sieve)	%	5 - 15	Class SR2 : < 20
Passing Ability (L-Box)		> 0.95	Class PA2 : >= 0.80 with 3 rebars
Blocking Step (J-Ring with 16 rebars)	mm	<10	
Yield	litres	~12	per 25kg bag
Mixing Time	minutes	3 - 5	
Water Dosage	litres	2.8 – 3.3	per 25kg bag
Pot Life	hours	~1.0	at 30°C

Product Characteristics for Emcekrete CR 80

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 our environment, please empty all packs 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.

Edition 03/14. 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.

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