

MicroConcrete

Superplasticised small aggregate concrete for structural repairs

Description

MicroConcrete is formulated with cements, secondary cementitious materials, superplasticisers and chemicals to control plastic and hardened phase shrinkage. A 3-5mm stone chip aggregate is included.

MicroConcrete contains Xypex® micro-crystalline technology.

Uses

Samson **MicroConcrete** is especially suited for "shutter and pour" methods of concrete repair. Load bearing elements such as columns, beams and soffits where reinforcing bars are exposed.

Water addition

Mixed with water at the following rates per 25kg bag, Samson **MicroConcrete** will have the following fresh and hardened properties:

Litres per bag	Consistency
2.5	semi-flowable
3.0	flowable
3.5	very flowable

Strength expectations (MPa)

	2.5 L	3 L	3.5 L
1 day	30	25	20
7 days	50	45	40
28 days	65	55	50
Water binder ratio	0.42	0.50	0.58

Dimensional Stability

Samson **MicroConcrete** has two mechanisms to promote dimensional stability – one for countering fresh state settlement and the other for minor hardened state expansion to counter subsequent drying shrinkage.

Installation

Preparation of the concrete to be repaired should be according to best practice, including removal of all unsound concrete, perimeter cutting to avoid "feather edging", cleaning of steel and wetting to internally saturated but surface dry condition.

Pre-priming of the prepared area to be repaired with Samson "Polymered Powder Primer (**P3 Primer**)" bonding system is recommended. This should be liberally brushed onto all reinforcing bars and all surfaces onto which the repair must bond.

Shutters should be prepared to allow for "letter box" flow of the **MicroConcrete** into the cavity to be filled and then provide some head of pressure to keep the flowable concrete in contact with all faces of the concrete being repaired.

Shutters should be ready for installation and the **MicroConcrete** ready for pouring so that the **P3 Primer** is still wet when pouring commences after the shutters are in place.

Curing of **MicroConcrete** should follow normal curing processes for regular concrete which may be by application of a suitable membrane forming curing compound or by wet curing.

Packaging

Packed in 25 kg poly prop woven bags with polyethylene inner-liner.

Yield

Mixed with about 12 % water each 25 kg of **MicroConcrete** powder will yield about 12 L.

Shelf Life

Up to one year, stored in cool dry conditions where bag is not punctured or damaged.



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Warranty

Samson warrants that its products will perform as declared in its literature and this warranty extends only to the replacement of any of its products that may be proven to be defective.

Disclaimer

Samson Technologies retains the right to change any information in our literature, at any time, without prior notification.