



ReCon MC

Non-Shrink, Free Flow Polymer Modified Micro Concrete

DESCRIPTION

ReCon MC is a high strength, free flowing, shrinkage compensated micro concrete with low alkali content. It provides a dimensionally stable, free flowing micro concrete with controlled expansion. It exhibits excellent thermal compatibility with concrete.

USES

ReCon MC can be used in various applications such as:

- Repair of large sections including encasement of structural elements
- Repair of marine structures, bridges, etc.
- Difficult access locations where patch repair is not feasible
- Used as a repair material where cathodic protection is used
- Suitable for voids / sections up to 20 - 150 mm in a single layer

ADVANTAGES

- Exhibits excellent bond with concrete
- Can be pumped or manually placed
- Self compacting, no vibration required
- High early and ultimate strength
- Expansion properties compensates for shrinkage in plastic and hardened state

TYPICAL PROPERTIES at 25°C with W/P ratio at 0.16

PROPERTY	TEST METHOD	VALUE	
Component	-	Single	
Form	-	Powder	
Colour	-	Grey	
Fresh Wet Density	BSEN 12350-6	2.23 kg/ltr +/- 0.05	
Working Time	-	30 mins	
Compressive Strength	ASTM C109	1 day	25 N/mm ²
		7 days	45 N/mm ²
		28 days	60 N/mm ²
Bond Strength	ASTM D4541	> 1 N/mm ² at 28 days	
Flexural Strength	BS 6319-3	9 N/mm ² at 28 days	
Tensile Strength	BS 6319-7	4.5 N/mm ² at 28 days	
Water Absorption (ISAT)	BS 1881-208	< 0.01 ml/m ² /sec at 2 hrs	
Water Permeability	BSEN 12390-8	< 10mm	
Rapid Chloride Permiability	ASTM C1202	< 650 coulombs	
Drying Shrinkage	ASTM C157	< 500 microstrain at 28 days	

SURFACE PREPARATION

Surfaces to be repaired should be sound, clean and free from oil, grease, dirt, paint, mould oil, curing compounds etc. Formwork should be strong and leak proof. Drain outlets should be installed to allow drainage of water after soaking. Air vents should also be incorporated. Cut back edges to right angles to avoid feather edges. Corroded steel should be fully exposed allowing a gap behind the steel to ensure removal of rust and to



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allowed the microconcrete to flow. Exposed and corroded rebar should be grit blasted or water blasted to remove rust and chlorides. Cleaned rebar should be primed with **ReCon Zinc** or **ReCon ST**.

PRIMING

Priming of concrete substrate is generally not required. Surfaces to receive **ReCon MC** should be well saturated with water prior to application. All excess water must be drained off before placing **ReCon MC**. In some critical cases appropriate bonding agent from **FitBond** range should be used.

MIXING

ReCon MC should be mixed using either a forced action mixer or heavy duty slow speed drill (400-500 rpm) fitted with a spiral paddle. Add powder to water and mix for 3-4 minutes until a smooth homogenous consistency is achieved.

The amount of water to be added is 4 ltrs per 25 kg. Do not try to remix the product after it loses its work ability by the addition of extra water. Part mixing of **ReCon MC** can be adopted provided correct water to powder ratio is maintained. If weather conditions are very hot use of chilled water is recommended.

APPLICATION

The mixed material should be placed or pumped continuously. Place all the mixed material within 30 minutes of mixing. If pumping of material is adopted ensure to lubricate the pump lines by grouting. In situations which require deep sections to be casted, 10 mm down coarse aggregate in the ratio of 1:1 or 1:0.5 by weight of **ReCon MC** can be added depending on consistency required.

Thick mortar consistency of mixed material can be achieved by reducing water to powder ratio for use in special applications. In continuously wet areas or where enhanced bonding is required, it is recommended to use **FitBond EA** as bonding agent before placing of **ReCon MC**.

CURING

Curing is important to allow cement hydration in the micro concrete to ensure full strength gain. To prevent water loss, wet curing by sprinkling of water, or placing of wet hessian is recommended. Alternatively suitable curing compound from **JetCure** range may be used.

PACK SIZE

25 kg bag

YIELD

13 ltr/25 kg bag



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LIMITATIONS

At temperatures above 35°C it is recommended that measures are taken to reduce material placing temperatures. These include, storing materials and equipments under cool shade and away from direct sunlight. Avoid installation during the hottest part of the day. Ensure that water temperature is kept below 20°C. Should not be used in unrestrained area.

GENERAL INFORMATION

Shelf Life	12 months from date of manufacture when stored under warehouse conditions in original unopened packing. High temperature / humidity may reduce shelf life.
Cleaning	Clean all equipments and tools with water immediately after use.

HEALTH and SAFETY

PPE's	Gloves, goggles and suitable mask must be worn.
Precautions	Contact with skin, eyes, etc. must be avoided.
Hazard	Regarded as non-hazardous for transportation.
Disposal	Do not reuse bags. To be disposed off as per local rules and regulations.
Additional Information	Refer MSDS. (Available on request.)

TECHNICAL SERVICE

CONMIX Technical Services are available on request for onsite support to assist in the correct use of its products.

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