



Let's Build **GREEN**

AN ISO 9001:2015 CERTIFIED COMPANY

## MAP - MICRO CONCRETE

Flowable Mortar For Repairs Of Damaged Reinforced Concrete Members

### DESCRIPTION

MAP-MICRO CONCRETE is a ready to use dry powder which requires only addition of clean water at site to produce a free flowing non shrink repair micro concrete. It is composed of good quality cement, properly selected aggregates & additives. It is used & designed for repairing of damaged reinforced concrete elements like columns, beams & structure where the areas are restricted or not easily accessible for proper placement of concrete using vibrator. MAP- MICRO CONCRETE has excellent flowability, workability & proper particle size to reach small & congested reinforcement.

### SPECIFICATIONS

MAP-MICRO CONCRETE meets the requirement of ASTM C 109: 99, ASTM C 307, BS 1881 Part 207

### AREAS OF APPLICATION

- Repair of damaged reinforced concrete elements like beams, columns, wall, etc. where access is restricted and compaction is not possible.
- For Jacketing of RCC columns to increase load-taking capacity (strengthening of a vertical members)

### BENEFITS

- Pumpable - Can be pumped or poured into restricted locations.
- Flowable - Flowable mortar hence does not require compaction.
- Shrinkage compensation – Controlled expansion system which compensates for shrinkage and settlement in the plastic state.
- Strength - Develops high initial and ultimate compressive strength.
- Moisture resistant - Offers excellent resistance to moisture ingress.
- Durability - Makes repaired sections highly durable & compatible to parent concrete.
- Thickness build up - Can be applied at 100 mm thickness at one stroke.
- Chloride content - Contains no chloride based additive so prevents corrosion of reinforcement.
- Early reinstatement - Rapid strength gain helps in early reinstatement & removal of shuttering .

### METHOD OF APPLICATION

#### 1. SURFACE PREPARATION

- Clean the surface and remove loose concrete, dust, oil, paint, grease, waterproof coating, etc.
- Expose fully any corroded steel in the repair area and remove all scale and corrosion deposits. Light shot blasting is highly recommended. Apply Rust Remover for rust free bars.

Sr. No	Properties	Specification	Results
1	Compressive Strength @30°C	ASTM C 109:99	15 N/mm <sup>2</sup> @ 1 days 30 N/mm <sup>2</sup> @ 3 days 50 N/mm <sup>2</sup> @ 7 days 60 N/mm <sup>2</sup> @28 days
2	Flexural Strength	@30°C	6 N/mm <sup>2</sup> @28 days
3	Tensile Strength @30°C	ASTM C 307	2.5 N/mm <sup>2</sup> @ 7 days
4	Expansion		0.45
5	Water Absorption after 24 hrs (%)		0.2 %
6	Chloride Content		0.2 %

- In case of a very old concrete substrate, it should be primed by applying one coat of MAP-Epoxy Bonding Agent. Allow the bonding agent to reach tacky condition before pouring of mix concrete.

#### 2. MIXING

- Use PAN Mixer for mixing of MAP-MICRO CONCRETE
- Charge 85-90 % of clean & potable mixing water (3.75 to 4 liters per 25 kg bag) to a P AN Mixer.
- Start addition of Micro Concrete powder slowly under continuous mixing . Keep mixing for 2 minutes. Add balance quantity 15 – 20% of mixing water & again mix for another 2-3 minutes to form a homogeneous, free flowing, uniform & lump-free mix.

#### 3. APPLICATION

- Pour or pump the mixed MAP-MICRO CONCRETE into a watertight shuttering .
- Cure the repaired concrete for minimum 7 days before removing the shuttering.

### Precautions & Limitations

- MAP-MICRO CONCRETE can applied in section upto 100 mm depth.
- For thickness more than 100 mm, addition of pre-calculated aggregates may be required. Consult technical team for more details.
- Strictly follow water -powder ratio as specified.
- Ensure that the shuttering is 100% water-tight.
- Ensure full exposure of reinforced steel.





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### PACKAGING & COVERAGE

25 Kg. HDPE Bag, 1.3 m<sup>2</sup> per 25 kg pack at 10 mm  
Thickness Yield - 13 ltrs at a water/powder ratio of 0.17 &  
Fresh Wet Density at 30 °C is 2230 kg/m

### SHELF LIFE & STORAGE

MAP - MICRO CONCRETE has a shelf life of 6 months from  
skin, date of manufacture when kept at a temperature between  
5 °C to 45 °C and store in the original, unopened bags. All  
material shall be stored under cover in a manner that will  
prevent damage preferable on pallets and protected from  
excessive heat and moisture. Do not freeze.

MAP PRODUCTS PVT LTD. is a firm of Assessed Capability. The  
company conform to the standard quality system,  
environmental management and is an ISO 9001:2015 ,  
ISO 14001:2015 & OHSAS 18001:2007 Certified Company.

### HEALTH & SAFETY

MAP - MICRO CONCRETE should not come into contact with  
eyes or be swallowed. Protective glasses should be worn during  
mixing and application. If MAP - MICRO CONCRETE comes into  
contact with skin, remove before hardening by washing with  
soap and water. If accidental eye contact occur wash with plenty  
of water and seek medical advice. If swallowed seek medical  
advice immediately. Do not induce vomiting. For full health and  
safety data refer to Product Safety Data Sheet.



CONCRETE  
ADMIXTURE



WATERPROOFING  
SYSTEM



MASONRY REPAIR



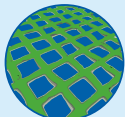
READYMIX  
MORTAR



ENGINEERING  
GROUT



FLOORING  
SYSTEM



TECHNICAL TEXTILE  
GLASS REINFORCEMENT



SEALANT



PROTECTIVE  
COATING



ADHESIVE  
BONDING AGENT

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