

## **HI-MICRO CONCRETE**

(Mortar for Repairs of Damaged Reinforced concrete members.)

### **DESCRIPTION**

HI-MICRO concrete is a dry ready to use cement-based powder. Which is 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. It requires only addition of clean water at site to produce a free flowing non shrink repair micro concrete. It is a cementitious material incorporated with additives which impart controlled expansion characteristics in the plastic state with reduced water demand. It has excellent flowability, workability & proper particle size to reach small & congested reinforcement.

### **USES**

It is designed for use in medium & large volume repairs typically ranging from 5mm to 50 mm thickness & deep.

Dense reinforcement areas where conventional concreting is difficult  
For congested RCC Reinforcement Repairs & rehabilitations & Jacketing

### **ADVANTAGES**

- Develops high initial and ultimate compressive strength.
- Offers excellent resistance to moisture ingress. Can be pumped or poured into restricted locations
- Makes repaired sections highly durable & compatible to parent concrete.
- Flowable mortar hence does not require compaction. Contains no chloride-based additive
- Controlled expansion system which compensates for shrinkage and settlement in the plastic state.

### **PACKING**

Hi-Micro concrete is packed in 25kg Bags.

### **COVERAGE**

1.3 m<sup>2</sup> per 25 kg pack at 10 mm thickness. Yield - 13.5 ltrs

### **APPLICATION**

**Surface Preparation:** The surface must be clean, sound, dry and free from oil, grease, laitance and any loose particles etc. Expose fully any corroded steel in the repair area and remove all scale and corrosion deposits. Apply Zinc Primer over the cleaned re-bars and allow it to dry before pouring of Hi-Micro concrete. Saturate the substrate with water to prevent absorption of water from the mixed material. For a dry substrate, it should be primed by applying one coat of Hi-Fix bonding Agent. Allow the bonding agent to reach tacky condition before pouring of mix concrete.

**Mixing:** Use Mixer for mixing of Hi-Micro concrete. Charge 85-90 % of clean & potable mixing water (3.75 to 4 liters per 25 kg bag) and 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.

**Application:** Pour the mixed Hi-Micro concrete into a watertight shuttering.

Cure the repaired concrete for minimum 7 days before removing the shuttering or alternatively use Hi-Cure Curing Compound for curing.

### **STORAGE**

Store tightly sealed Bags at room temperature.

### **PRECAUTIONS & LIMITATIONS**

Hi-Micro concrete can applied in section up to 100 mm depth. For thickness more than 100 mm, addition of pre-calculated aggregates may be required. Strictly follow water-powder ratio as specified. Ensure that the shuttering is 100% watertight. Ensure full exposure of reinforced steel. Consult structural engineer if the diameter of rebar is reduced by more than 20% than the original diameter. Replacement or provision of additional steel shall be done in consultation with structural consultant.

**This Product is Formulated and Labeled and Commercial use only**

For Best Results and Safest Usage, User is Specialty Directed to Consult.

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