

RAMCO
MICRO
CONCRETE

Ramco Micro Concrete

Ramco Micro Concrete is a high-performance construction material, expertly engineered under controlled factory conditions to ensure optimal pourability and shrinkage resistance.

Formulated with precision from premium-grade cement, selected fine aggregates and specialized polymers, it delivers exceptional strength and durability.



Benefits

Ready-to-use: Just add water to the premixed Micro concrete.

Ideal for restricted spaces: Easily pourable in confined areas.

Flowable consistency: Self-compacting, eliminating the need for vibration.

Shrinkage compensation: Controlled expansion minimizes shrinkage and settlement during setting.

High strength: Achieves strong initial and ultimate compressive strength.

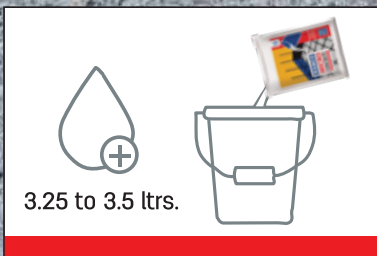
Moisture-resistant: Provides excellent protection against moisture ingress.

Enhanced durability: Ensures compatibility and long-lasting durability with existing concrete.



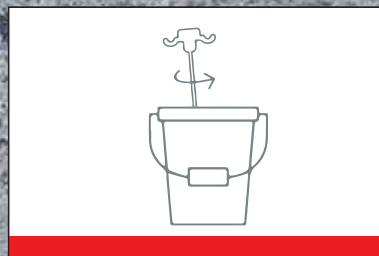
Application areas

- Repair of damaged reinforced concrete elements, such as beams, columns and walls, where access is limited and compaction is challenging.
- Jacketing of RCC columns to enhance load capacity.
- Rapid repair projects.
- Overlay for existing surfaces in rehabilitation projects to enhance durability and aesthetics.
- Available variants are 40 MPa, 60 MPa and 80 MPa.



3.25 to 3.5 ltrs.

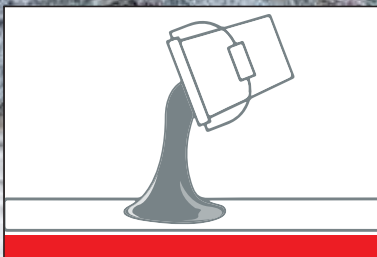
Add 3.25-3.5 litres (12-14% of weight) of clean water to a bucket for each 25 kg bag.



Gradually mix the entire bag of Ramco Micro Concrete with a low-speed stirrer (under 500 rpm).



Stir for 3 minutes until smooth, then rest for 2 minutes. Stir again for 2 minutes before applying. (Do not add sand or other materials).



Use within 30 minutes of mixing.



For application thickness more than 50 mm recommended to add 30-40% of 6 mm aggregate.

Mixing Instructions

Storage instructions: Store in a covered, dry and moisture-free place.

Application Guidelines



Cut damaged areas back to solid base; ensure surfaces are clean, dry and dust-free.



Clean reinforcement steel with a wire brush.



Apply Ramco Super Bond - Epoxy to steel and old concrete for stronger bonding.



Apply corrosion inhibitor to clean the damaged rod.



Use Ramco Super Grout - Epoxy to attach new reinforcement to the old slab.



Pour the mixed Ramco Micro Concrete immediately. Avoid vibration or compaction, ensuring a continuous pour.

Technical Specifications

| Physical Properties | Standards | Typical Values |
|---|----------------------|-------------------------------|
| Colour | - | Grey Colour |
| Dry Density | Lab Developed Method | 1200 - 1300 Kg/m ³ |
| Percentage of water to be added by weight | - | 15 - 16% |
| Flow with the prescribed water percentage | Lab Developed Method | 240 - 260 mm |
| Modulus of Elasticity | ASTM C-469-02e1 | 32490 N/mm ² |
| Shrinkage % | - | Compensated |
| Initial Setting Time | IS 4031 Part 5 | 145 minutes |
| Final Setting Time | ASTM C-580-18 (2018) | 450 minutes |
| Flexural Strength @ 28 days | | 4 - 6 N/mm ² |

Compressive Strength details (ASTM C-109-21)

| Days | M40 | M60 | M40 |
|--------|---------------------------|---------------------------|---------------------------|
| 3 Day | 18 - 20 N/mm ² | 20 - 25 N/mm ² | 45 - 50 N/mm ² |
| 7 Day | 30 - 35 N/mm ² | 45 - 50 N/mm ² | 65 - 70 N/mm ² |
| 28 Day | 45 - 50 N/mm ² | 65 - 70 N/mm ² | 85 - 90 N/mm ² |

- Note:**
- i) The compressive strength test mentioned is tested only for 80 MPa variant.
 - ii) The compressive strength details mentioned above were obtained without the use of coarse aggregates; the results may vary with addition of coarse aggregates.

Right Products **for** Right Applications

