

MICRO CONCRETE

Micro Concrete is combination of cement, high quality graded fine aggregate, shrinkage compensating agents and dispersion agents. It gives high-strength and designed for precision grouting and general construction applications. It has excellent flowability, workability & proper particle size to reach small & congested reinforcement.

PRODUCT DESCRIPTION

PRODUCT: Micro Concrete is a dry ready mix cementitious based composition formulated mainly for used in repairs works when the concrete is damaged, and the area is restricted in movement due to which there is problem in placing concrete.

COMPOSITION	Grey cement, selected fillers, aggregate, polymers
COLOUR	Grey dry powder
TESTS	Tested according to ASTM C 109, & Internal test methods
FEATURES	<ul style="list-style-type: none">Develops high initial and ultimate final strengthsMakes repaired sections highly durableRapid strength gain to facilitate early reinstatementCan be used as a pumpable or pourable repair concrete where access is restrictedRepair of damaged concrete structures e.g., Columns, Beams, Slabs, etc.
USES	<ul style="list-style-type: none">Easy to mix and applyHigh flow characteristicHigh strengths with low permeabilityGood bond with old concreteContains no added chloride

TECHNICAL ANALYSIS (CONFORMS TO ASTM C 109, & INTERNAL TEST METHOD)

PARAMETERS	SPECIFICATIONS
CONSISTENCY	10 – 15 %
FLOW AT 0 MINUTE	200 – 250 mm
FLOW AT 20 MINUTE	150 – 200 mm
SETTING TIME	< 10 Hours
BLEEDING	NO BLEEDING OR FOAM ON TOP

MECHANICAL PROPERTIES

COMPRESSION STRENGTH	
COMPRESSIVE STRENGTH (AFTER 1 DAYS)	> 20.0 MPa
COMPRESSIVE STRENGTH (AFTER 3 DAYS)	> 35.0 MPa
COMPRESSIVE STRENGTH (AFTER 7 DAYS)	> 45.0 MPa
COMPRESSIVE STRENGTH (AFTER 28 DAYS)	> 60.0 MPa

GUIDANCE FOR USE

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| APPLICATION AREA | <ul style="list-style-type: none"> 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). |
| SUBSTRATE PREPARATION | <ul style="list-style-type: none"> Clean loose particles, dirt, grease, and traces of foreign materials from the surface, if necessary, by using wire brush/sandpaper or by chipping. Make sure the surface temperature and ambient temperature of grouted area should be between < 5°C and > 40°C. |
| MIXING | <ul style="list-style-type: none"> Take approx.100-150 ml of clean water for 1 Kg of Micro Concrete in a clean bucket. It is very important that add material into water and not vice versa. Stir continuously for 3-5 minutes by using mechanical stirrer or by hand till a pourable consistency is obtained with recommended water –powder ratio. |

APPLICATION	<ul style="list-style-type: none">• Cure the surface with water before application.• Pour the Micro Concrete after mixing into the area to be covered /filled/watertight shuttering.• During filling if required, ensure proper air displacement.• Cure the repaired concrete for minimum 7 days before removing the shuttering.• Thickness should be in between minimum of 25 mm to maximum 100 mm. This will prevent the formation of any cracks after healing.• Use of gravels (5 to 12 mm) is recommended for bigger depth.
CURING	<ul style="list-style-type: none">• Curing is necessary to optimize the physical properties of concrete and to reduce the shrinkage. Continuous moist treatment for a minimum period of 7 days.• Alternatively, moist cure for a minimum period of 24 hours and apply a curing compound complying with standard.• Curing is particularly critical in rapid moisture loss conditions such as high temperatures, high winds, and low humidity.
USAGE PRECAUTIONS	<ul style="list-style-type: none">• Adding cement or other materials (in addition to the total increased as mentioned earlier) will change the designed product marks.• The consistency of water can be affected by temperature, mixing method and batch size.• To avoid fluctuations in efficiency, use consistent water temperature when mixing multiple batches.
PACK SIZE	<ul style="list-style-type: none">• 25 Kg
SHELF LIFE	<ul style="list-style-type: none">• 6 Months

STORAGE INSTRUCTIONS

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- Store in cool, dry, and well-ventilated place away from heat source or direct sunlight.
 - Keep away from water and damp area.
 - Avoid using partially used material; open bags with partially used material should be kept in a bag with its mouth tied tightly with string to prevent lump formation.
 - As temperature, humidity, water addition and other parameters vary from site to site; the above information should be treated as general guidelines.
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HEALTH & SAFETY INFORMATION

- It contains only eco-friendly fillers and additives. However, being cement based, it is alkaline and hence it is advisable to avoid direct eye and skin contact with this. In case of eye contact, kindly wash with clean water at least for 15 minutes and seek medical help and keep it out of children reach.

Disclaimer: Technical information is based on knowledge and experience of accurate results. These results refer to the long-term application of the product in practice. Recommendations and suggestions are listed for guidance only. Since site conditions during the applications are beyond the manufacturer's control, hence it is also the responsibility of the end-user to ensure that the content in their possession is the latest case.