

M-CRETE 1/80

Flowable Micro-Concrete for Grouting and Repair

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TEX**

Formerly Pagel Pakistan Pvt. Ltd.

Description

M-Crete 1/80 is a single component, flowable, high strength cementitious micro concrete with non-shrink properties. It is suitable for large volume of concrete repairs of thicknesses between 75mm and 500mm.

- Single component system allows for easy application.
- Economical.
- Good adhesion.
- Rapid strength development.
- Vapour permeable.
- Low water permeability.
- Self-compacting – No honeycombing as air is displaced without the need for vibration.

Recommended Uses

- Pile heads - Re-profiling of damaged concrete work.
- General void filling.
- Large volume or area repairs where the use of hand or trowel applied mortars is impractical.
- Can be applied to large areas, with thickness in excess of 75mm and up to 500mm.
- For repair of area with restricted access or high concentration of reinforcement, which makes it difficult to use conventional grouts.
- Also suitable for base plate grouting where thickness exceeds 75mm.

ADMIXTURES

SPECIAL ADMIXTURES

SURFACE IMPROVEMENT

GROUTS

WATER PROOFING

FLOORING

INDUSTRIAL COATINGS

JOINT SEALANTS

REPAIR / CRACK INJECTION

TILING SYSTEMS



Technical Data

Chemical Base	Ordinary Portland Cement with added aggregates and chemical additives
Colour	Grey
Density (25° C)	2.3 ±0.1 Kg/L
Pot life (25° C)	2 hours
Compressive Strength (ASTM C109)	1 Day ≥ 30 N/mm ²
	7 Days ≥ 45 N/mm ²
	28 Days ≥ 65 N/mm ²
Tensile Strength @ 28 days (ASTM C307)	≥ 5 N/mm ²
Flexural Strength @ 28 days (ASTM C 580)	≥ 8 N/mm ²
Application Thickness	75mm to 500mm
Water Permeability @ 5 bar (BS EN 12390)	<10mm
Ambient Air Temperature	5°C to 40°C
Substrate Temperature	5°C to 40°C

Application Guidelines

Surface preparation:

Clean thoroughly, removing all loose or unsound material and cement slurry by means of hydraulic water-blasting or similar, till carrying capacity of grain structure is reached. Wire brush may be used for small areas. Prior to grouting, the surface must be wetted continuously for approx. 6 hours till saturation.

Priming:

The application of suitable bonding agent, such as Vertex Chemicals M3EP or equivalent will improve adhesion on large area or where particularly dense concrete substrates are involved.

Mixing:

Empty the entire contents of the bag into a suitable container and use a suitable mixer for this step such as an approved grout paddle at slow speed (300/400 rpm) with heavy-duty drill. Mix dry 2-3 minutes before adding the water to the mixing container. Add 2.5L to 3L (depending on temperature) of water per bag and mix for 3 more minutes. Do not mix by hand or mix parts bags. Only use full bags.

For best results, first add 75% of required water and mix until the larger aggregate has thoroughly dispersed and a uniform, free flowing consistency is obtained, then add remaining water and mix additional 2 minutes or until the material seems homogenous.

Placing:

Before placement of the micro concrete, dampen the concrete surface homogeneously using clean water. Before pouring, however, let the mixed grout stand for 2 to 3 minutes after mixing water to allow entrapped air to escape. It is important to provide sufficient channels for the air to escape during grouting. The material does not require any agitation and will flow freely if enough hydrostatic head is provided. While the micro concrete is setting, prevent exposure to precipitation and any source of water.

Curing:

As a good practice, curing shall be done by non-degradable types of curing compound or a wet hessian cloth. When cured with wet hessian cloth, the area shall be covered immediately with high density polyethylene sheet which should be taped to all edges.

Precautions:

Ensure formwork is fully secured and also watertight in order to prevent any movement and/or leakage.

If the ambient temperature is very high, it is recommended to use chilled water when mixing in order to ensure that the temperature remains below 35oC.

In case of high temperatures, base plates and foundation must be covered from direct sunlight exposure.

Important Information:

Supplied in: 25kg Bag.

Storage: Dry, frost free area.
Out of direct sunlight.

Shelf life: 12 months.

Hazard Class: No dangerous Substances.

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