

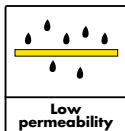
Polycrete MC

High strength free flowing micro concrete

Suitable to repair large volume of concrete repairs at thicknesses from 10mm to 250mm.

CHARACTERISTICS

- ▶ Rapid strength development and high ultimate strength
- ▶ Shrinkage compensated
- ▶ Minimal drying shrinkage
- ▶ Low alkali content minimizes the danger of alkali silica reaction
- ▶ Self-compacting /no honeycombing as air is displaced without need for vibration



DESCRIPTION

Polycrete MC is a high strength, shrinkage compensated, free flowing micro-concrete. The material is a blend of portland cement, graded aggregates, special fillers and additives. When mixed with clean water, a free flowing product is produced ideally suited to repair large volume of concrete repairs at thicknesses from 10mm to 250mm.

FIELDS OF APPLICATION

- pile head re-profiling and general void filling
- large volume or area repairs where the use of hand or trowel applied mortars is impractical
- it can be applied for large volume repairs in excess of 10 mm. the product can be applied in sections generally up to 250 mm
- in repair areas with restricted access or high concentration of reinforcement
- due to the plastic nature of the product, it can be used as grout and poured under a head of pressure

APPLICATION INSTRUCTIONS

Surface preparation

Concrete substrate to be repaired should be sound, clean, and uncontaminated. The formwork should be rigid and tight to prevent loss of grout and have properly sealed faces to ensure that no water is absorbed from the repair material. Saw cut the extremities of the repair locations to a depth of at least 10 mm to avoid feather edging and to provide a square edge. Clean any corroded rebar by grit blasting or vigorous wire brushing. Any rebar that has lost



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more than 25% of its original diameter should be cut out and replaced. Prime reinforcement with Polyzinc*, zinc rich primer.

Priming

Not required, pre-wet substrate and remove any contaminants and standing water before placing the grout.

Mixing

One bag (25kg) of Polycrete MC requires 2.75 - 3.25L of clean potable water. In hot climates, the use of cold water (< 25°C) is recommended. Mix in a suitable size drum using an approved grout paddle at a slow speed (300/400 rpm) with a heavy-duty drill. Pour required amount of water in the mixing vessel followed by Polycrete MC. Mix for 3 minutes to get a homogeneous and consistent mix.

Placing

The mixed material should be placed within 30 minutes. It can be poured or pumped in to the repair area to fill the cavity at the required level. No vibration is required. After concrete has initially set, the surface may be finished to the desired texture.

Curing

Due to the presence of rapid drying polymers, the repaired area shall be cured in accordance with good concrete

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

PRECAUTIONS

- not recommended to be used at temperature under 5°C
- do not mix part bags
- ponding method of curing is not suitable

YIELD

Polycrete MC 12.17L/25 kg @ 0.12 w/p ratio

STORAGE & SHELF LIFE

The material shall be stored in a cool, dry and shaded area. In tropical areas the material shall be stored in an air-conditioned environment. Shelf life up to 12 months in un-opened containers. Exposure to excessive heat and humidity will affect the quality of the product and reduce its shelf life.

HEALTH & SAFETY

As with all construction chemical products caution should always be exercised. Protective clothing such as gloves and goggles shall be worn. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

SUPPLY

Polycrete MC 25kg bag

TECHNICAL SPECIFICATION

| PROPERTIES | VALUES | TEST STANDARDS |
|---|------------------------|----------------|
| Color & appearance | Grey powder | - |
| Mixed density, [g/cc] | 2.3±0.05 | ASTM D 1475 |
| Application life, [minutes] | 30 | BS EN 196 |
| Compressive strength @28 days, [N/mm ²] | >70 | ASTM C 579 |
| Tensile strength @ 28 days, [N/mm ²] | >5 | ASTM C 307 |
| Flexural strength @ 28 days, [N/mm ²] | >9 | ASTM C 580 |
| Water permeability @5 bar pressure | <10mm | BS EN 12390 |
| Application thickness, [mm/pour] | minimum 10 maximum 250 | - |
| Application temperature, [°C] | 5 to 45 | - |

All values given are subject to 5-10% tolerance

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards. The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23°C and 50 % relative air humidity at laboratory conditions unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed.

The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.