

Self-Compacting Cementitious Micro Concrete

Description

MamzFlow SCMC is a ready to use cementitious self-compacting micro concrete, that can be applied by addition of fresh clean water at site. Material is composed of Portland cement, graded aggregate, fillers and additives that impart expansion features in the plastic stage, while reducing water demand.

MamzFlow SCMC can be applied in 50 mm & more thickness into shuttered repair areas.

Uses

- MamzFlow SCMC can be used for bedding & grouting of anchor bolts of Gas Turbines, Generators, crane rails.
- It can be applied for restoration of large sections of structural concrete with 50 mm & more thickness.
- Having high fluidity and ideal for pouring in confined spaces where compaction or vibration is not possible.
- Shuttered applications for large pours where trowel or hand packed applications are impossible.
- Dams, water reservoirs, water canals, potable water tanks.
- Bridges, piling, piers, silos & cooling towers

Advantages

- Pre-packed & ready to use.
- Easy application
- High bond strength to steel and concrete.
- Can be poured or pumped in restricted places.
- Highly fluid, no vibration required.
- Early & high ultimate strength gains.
- Chloride free
- Good collapse & impact resistant
- Reduces labor cost.

Packaging

25 Kgs. Bag

Technical Specs & Physical Properties

Appearance	Grey Cementitious Power
Initial Set (30°C)	8 Hours
Compressive Strengths - MPA ASTM C109	
1 day	17 MPA
3 days	28 MPA
7 days	38 MPA
28days	50 MPA
Tensile Strength	2.0N/mm ² @ 28 days
Flexural Strength	5.0N/mm ² @ 28 days
Wet expansion	0.07%
Wet Density	2265 Kg./m ³
Water Addition	3.5 Ltrs.
Yield Per Bag	12.5 Ltrs. Per Bag

Surface Preparations

The substrate should be sound, firm and clean, free of oil, grease, loose particles, and cement laitance, old layer of paint.

Square cut all the edges to a minimum depth of 10 mm. All others areas should be cut deep and chiseled out to a depth in excess of 50 mm.

Expose all corroded reinforcing steel and grit blast. Required form work should be well designed and fixed to prevent any leakage of the mixed micro concrete.

Bonding/Priming

Surface saturation should be carried out at least 4-5 hours prior to pouring MamzFlow micro concrete. It's important to drain out all excess water with no free water remaining inside the shuttering.

All exposed reinforcing bars be primed with Mamz ZRP, Zinc enrich primer to protect the steel.

Use **Mamz EP 17**, wet to dry epoxy adhesive as a primer for structural repairs where the bond strength must be equal to or greater than the existing concrete.

Mixing

Place approximately 80% of the required water in the grout mixture first, then add while mixing slowly the micro concrete and mix for 2-3 minutes. Add the balance water mix approximately for 1 minute to obtain the correct consistency ensuring the mix is homogenous and free of lumps.

Coverage

25 Kgs. Of MamzFlow SCMC powder mixed with 3.5 Ltrs. of water yields approximately 12.5 Ltrs.

Application

MamzFlow SCMC can be pumped or poured into the formwork provided. This should be done as a continuous operation and must take place within 30 minutes of mixing.

Cleaning

Clean tools with water before the mortar hardens. Hardened material can only be removed by mechanical means and its difficult later on.

Protection on Completion

The formwork should be left in place at least 24 hours until the compressive strength of MamzFlow SCMC is 17-20 MPA or higher.

It should be cured as soon as the formwork is removed. First soak all exposed areas with fresh water and then apply **MamzCure WBW**, curing compound by brush or spray.

Disposal of excess/waste material should be carried out in accordance to local waste regulatory authority.

Handling & Storage

MamzFlow SCMC has a shelf life of six months if kept in a dry cool place in the original packing.

Health & Safety Precautions:

MamzFlow SCMC contains cement powders, during normal use have no harmful effect on dry skin. However, when material is mixed, or becomes damp, alkali is released which can be harmful to the skin. During use avoid inhalation of dust and contact with skin and eyes. Suitable gloves, eye protection and dust masks must be used. In case of contact with skin or eyes, it shall be immediately washed with fresh water.

MamzFlow SCMC is not flammable.

Important Note:

RADIANT construction Technologies, manufactures wide range of construction chemicals, including admixtures, concrete repairing mortars, curing compounds, adhesives, concrete protection coatings, curing compounds & waterproof coatings.

Separate Technical Data Sheets are available for these products.