

ShaliFix[®] MC 65

General purpose, non-shrink, cementitious micro concrete



Description

ShaliFix[®] MC 65 is supplied as a ready to use blend of dry powders which requires only the site addition of clean water to produce free flowing non shrink repair micro concrete. The material is based on Portland cements, graded aggregates and fillers, and additives which imparts controlled expansion characteristics in the plastic state, while minimizing water demand. For larger repairs, the **ShaliFix[®] MC 65** may be modified by the addition of 5 mm to 12 mm clean, graded, saturated surface dry aggregates at site.

Characteristics

Physical Appearance	Cementitious grey powder	Compressive Strength, MPa	
Mixed density	2.30 - 2.40 gm / cc	Age	
Water/powder ratio	0.15	1 Days	28 - 30
% Expansion	1 - 4	3 Days	40 - 45
Flexural strength @ 28 days	6 - 8 MPa	7 Days	55 - 60
		28 Days	65 - 70

Application

- Parking decks
- Floor toppings
- Pedestals
- Pavements
- Jacketing

Advantages

- Fluidity to allow for placement without vibration.
- Can be pumped or poured into restricted locations.
- Gaseous expansion system compensates for shrinkage and settlement in the plastic state.
- Rapid strength gain to facilitate early reinstatement.
- High ultimate strengths and low permeability of cured repair.

Application Methodology

➤ Surface Preparation

- The concrete must be clean and rough. All oil, dirt, debris, paint and unsound concrete must be removed. The surface must be prepared mechanically using a scrubber, brush hammer, shot blast or scarified which will give a surface profile of a minimum 1/8" (3 mm) and expose the large aggregate of the concrete.
- The final step is cleaning should be the complete removal of all residue with a vacuum cleaner or pressure washing. All concrete must possess an open surface texture with all curing compounds and sealers removed. Several hours prior to placing, the concrete substrates should be saturated with clean water. Remove any standing water. Alternatively, use a bonding system.
- For repair sections generally deeper than 100 mm it may be necessary to mix the **ShaliFix MC 65** with properly graded 5mm to 12mm slit free aggregate to minimize temperature rise. The quantity of aggregate required may vary depending on the nature and configuration of the repair location. However, it can be added between 50-10% by weight of microconcrete.

➤ Application of Material

- After the surface has been prepared, prime all area with either a slurry coat of **ShaliSBR Latex** or an epoxy bonding agent such as **ShaliBond Concrete**. The primer bonding agent must be ordered separately.
- Edges should be saw cut to 12 mm deeper than the topping thickness and repair to provide a locked in reinforced edge. Moving joints as in the case of expansion joints should be brought up through the repair by saw cutting or with the use of divider strip.

- Exposed rebar may be treated with an anti- corrosion coating such as **ShaliBond Concrete** or **ShaliPrime Zn R**. Remove all loose rust and scaling, preferably by sandblasting to white metal prior to coating the rebar.
- Care should be taken to ensure that **ShaliFix MC 65** is thoroughly mixed in a forced action mixer of adequate capacity. Alternatively, mix in a suitably sized drum with a high torque 400 - 500 rpm rotary drill fitted with a mixing paddle. It is essential that machine mixing capacity and labour availability is adequate to enable the placing operation to be carried out continuously.
- The quantity water required will 4.50 liters per 30 kg bag. With the mixer running, slowly empty **ShaliFix MC 65** bag into the mixer Mix continuously for 5 minutes, ensuring a smooth even consistency of the mix. Where the addition of graded coarse aggregate has been specified it should be added after the water and **ShaliFix MC 65** are properly mixed. Mixing should then continue for a further 1 minute to ensure proper dispersion.
- The mixed material should be placed immediately. If placed by pump, standard concrete pumping practice should be followed. Pumping should be commenced immediately after priming. If poured in the form work, avoid air entrapment by pouring from one side only.
- In cold condition down to 15⁰c, the use of warm water (upto 30°C) is advisable to accelerate strength development. Normal precautions for working with cementitious materials in winter should be adopted.
- At ambient temperature above 35°C the material should be stored in the shade and cold water used for mixing.

Curing

- **ShaliFix MC 65** should be cured immediately after stripping the formwork in accordance with good concrete practice. The use of curing compound sprayed on the surface of the **ShaliFix MC 65** in a continuation film, is recommended soon after tripping the form work.

Cleaning & Maintenance

Clean tools and equipment with water before the material hardens.

Health & Safety

- Avoid contact with skin / eyes, and avoid swallowing.
- Ensure adequate ventilation and avoid inhalation of vapor.
- Wear suitable protective clothing, gloves and eye protection.
- In case of skin contact, rinse with plenty of clean water, then clean with soap and water. Do not use solvent to clean the contacted area.
- In case of eye contact, wash with plenty of clean water and seek medical advice.
- If swallowed, seek medical attention immediately. Do not induce vomiting.

Packaging

Available in 30 kg bag.

Storage

Keep in cool and dry place, under shed, away from heat and moisture.

Shelf Life

6 months in original unopened sealed condition.



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Product Range

- Waterproofing and Insulation
- Road Surfacing
- Sealants and Additives
- Pipeline Coating
- Protective / Anti-Corrosive Coating
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- Grouts / Admixtures
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