

FIBMICROCRTE

Super Fluid Micro Concrete

DESCRIPTION

FIBMICROCRETE is a versatile, one part, patching and repair compound for repair project of all types. Requiring only the addition of water, FIBMICROCRETE is a high strength material, which is easy to use with an extended working time for ease of placement. It is similar in appearance to concrete and is suitable for use as a topping, patching mortar or repair material on horizontal surfaces.

AREAS OF APPLICATION

- Parking decks
- Floor toppings
- Joint repairs
- Equipment bases
- Pedestals
- Pavements

FEATURES & BENEFITS

- Can be used as a pumpable or pourable repair micro concrete where access is restricted.
- Highly fluid to allow for placement without vibration.
- Compensates for shrinkage by expansion.
- Premixed, ready to use.
- Long working time
- High strengths with low permeability.
- Chloride free.

TECHNICAL SPECIFICATIONS

COMPRESSIVE STRENGTH ASTM C -109 2" (50 mm) cubes

Age	Strength
1 day	34 MPa
3 days	45 MPa
7 days	54 MPa
28 days	65 MPa

FLEXURAL STRENGTH

7 days	7 MPa
28 days	8 MPa

WORKING TIME

Initial	-	10" (254 mm)
30 minutes	-	9 ½" (241 mm)
1 hour	-	9" (229 mm)

FIBMICROCRETE will accept normal traffic in 24 hours if curing temperature is 21°C.

APPEARANCE

FIBMICROCRETE is a free flowing powder designed to be mixed with water. After mixing and



placing, the colour may initially appear somewhat darker than the surrounding concrete. While the colour will lighten up substantially as the concrete cures and dries out, the repair may always appear slightly darker than the surrounding concrete.

This product is designed for finishing with a float or broom appearances. A steel trowel finish may be applied but timing of the final trowel is critical and the contractor may have difficulty achieving a smooth finish over a large area.

APPLICATION METHODOLOGY

FIBMICROCRETE is a single component, cement based micro-concrete to which only the site addition of clean water (and approved graded coarse aggregates where specified) shall be permitted. The micro-concrete shall contain no metallic aggregates or chlorides and shall be shrinkage compensated in the plastic state.

SURFACE PREPARATION

New concrete must be a minimum of 28 days if an epoxy adhesive will be used to the topping. If a slurry bond coat is used, the concrete must be a minimum of 3 days old. 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 scarifier which will give a surface profile of a minimum 1/8" (# 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. Immediately prior to placing, any free water should be removed. Alternatively, use a bonding system.

BONDING

After the surface has been prepared, prime all area with either a slurry coat of FIBMICROCRETE fortified with FIBCRETE SBR Latex or an epoxy bonding agent such as CORR-BOND. The primer bonding agent must be ordered separately.

SLURRY COAT

Mix FIBMICROCRETE as instructed but add an additional 0.95 litre of FIBCRETE SBR Latex per unit of the mix. Broom the slurry coat on to the prepared and pre-dampened concrete. Apply the FIBMICROCRETE topping before the slurry coat has dried.

JOINTS AND EDGES

Edges should be saw cut to 1/4" (6 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 REINFORCEMENT STEEL

Exposed rebar may be treated with an anti-corrosion coating such as CORR-BOND or FIB Zinc Prime. Remove all loose rust and scaling, preferably by sandblasting to white metal prior to coating the rebar

NOTE : For repair sections generally deeper than 100 mm it may be necessary to mix the FIBMICROCRETE with properly graded 5 mm to 12 mm silt free aggregate to minimise temperature rise. The quantity of aggregate required may vary depending on the nature and configuration of the repair location. It should be a max. of 8 kgs pea gravel per bag of FIBMICROCRETE.

MIXING

Small quantities may be mixed with a drill and "jiffy" mixer. Use a paddle type mortar mixer for

large jobs. All materials should be in the proper temperature range of 15°C- 32°C. Add the appropriate amount of water for the batch size and then add the dry product. Mix a minimum of three minutes. If pea gravel is to be added, do so now and mix an additional 2-3 minutes. The mixed product should be transported to the repair area and placed immediately.

PLACEMENT

Discharge material from mixer and place. For patching with a trowel, come-a-long, or square tipped shovel to a thickness that matches the surrounding concrete. Finish to desired texture. On large floor areas, used screed strips as guides in combination with vibratory screeding to level. Compact and finish by hand or machine trowel. If placed by pump, standard concrete pumping practice should be followed. The pump and pipeline must be primed with cement slurry. Pumping should be commenced immediately after priming. If poured in the form work, avoid air entrapment by pouring from one side only.

FINISHING

Finish the repair material to the desired texture. Do not add additional water to the surface during the finishing operation.

CURING & SEALING

To prevent surface cracking, cure the floor with a high solids curing compound, such as Shalimar Super Rezseal. In hot, windy or direct sunlight situations, re-wet the surface after the curing compound has dried and cover with polyethylene for a minimum of three days. If curing compound is not desired, wet cure for a minimum of three days.

PACKAGING / YIELD

FIBMICROCRETE is packaged in 25 kg bags. When mixed with 3.75 litres of water, the unit yields 0.013 m³ per bag. One unit of FIBMICROCRETE will cover approximately 0.42 m² when placed at an average depth of 1" (23 mm). A unit of FIBMICROCRETE may be extended with 8 kg of 3/8" (9.5mm) pea gravel which will yield 0.015 m³ FIBMICROCRETE extended with pea gravel must be used for overlay placements that exceed 1.5" (38.1 mm) in depth.

FIBMICROCRETE may also be ordered in bulk bags. These are suitable for mixing in RM truck for large placements.

NOTE : This product requires a primer bond coat and a curing compound which must be ordered separately.

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