



### KEY BENEFITS AND FEATURES

- Selectively graded aggregates blended with select additives to compensate plastic shrinkage and achieve exceptional strength.
- Premixed, Single component- only requires addition of water to obtain free flowing consistency.
- Good flowability ensures easy placement without vibration.
- Controlled gaseous expansion affords excellent dimensional stability ensuring exceptional contact with the parent concrete.
- Can be pumped or poured in areas with poor access.
- Cures to form an intense and impervious mass ensuring high performance over a prolonged periods enhancing concrete life.
- Free of metals and chloride hence prevents corrosion.
- Increased early strength gain vastly reduces downtime for maintenance based repairs.
- High ultimate strength ensures long term durability.

### Usage

- Ideal repair system for extensively damaged concrete members.
- Particularly suited for concrete repairs in areas with poor access.
- Compatibility with various concrete grades ensures usefulness in a variety of concrete repair jobs.
- Ideal for structural strengthening by concrete jacketing with or without reinforcement.
- Microconcrete volume can be extended by addition of 12mm downgraded aggregates by upto 0.75% by weight of Microconcrete.
- Also suited for encasement build-ups.

### DIRECTIONS FOR USE

**Surface Preparation :** All surfaces coming in contact with the Microconcrete must be free of dust, loose particles and other contaminants. Corroded reinforcement should be exposed and all rust and scales removed. Steel should be cleaned to a bright color before application. Ideally Grit Blasting would be advised. In case corrosion has occurred due to the presence of chlorides high pressure water washing is recommended immediately after grit blasting. One break-free coat of Tec<sup>®</sup> Beat ZR should be applied to the reinforcement and if needed a second coat. Concrete surface should be roughened to improve bond. Surface should be saturated with water for several hours prior to placement. Surface should be saturated surface dry (SSD) with no ponding immediately prior to placement. Instead, the prepared concrete substrate may be provided with a bonding coat of Tec<sup>®</sup> Bond EPO epoxy bonding agent. Tec<sup>®</sup> Bond EPO must be applied on a dry substrate. For repair sections exceeding 100mm use of 10-12mm downgraded aggregates, upto 0.75 parts by weight of the Microconcrete is strongly advocated. The quantity of aggregates to be added is a site decision and Techny Tech Team will be delighted to advise you in this regard.

### Form Preparation:

All forms should be treated with -Tec<sup>®</sup> Release MA- Mould Release compound. Forms should be caulked at all seams which can be done with a trowelable consistency of microconcrete or a caulking compound.

### Mixing:

Always use potable water. Large quantities should always be mixed in a paddle blade mortar mixer. Small quantities can be mixed with a ½" (1.3 cm) drill with a mixer. The dosage of water shall be 6-8 litres per 50Kg bag of Tec<sup>®</sup> Grout MC (ideal water: powder being 0.16). Always place water into the mixer before adding microconcrete to the mix. After initial mixing, add the prescribed water as needed until reaching the desired consistency. Mix time should be typically 4 minutes to 5 minutes. Only quantity that can be placed in 10-15 minutes should be mixed in each batch. For thicknesses above 100mm Tec<sup>®</sup> Grout MC should be blended with 10-12mm aggregate to ensure reduction in heat generation.



Certified:  
ISO 9001 (QMS) & ISO  
14001 (EMS)



**Placement:**

Microconcrete can be placed by hand or pump. Hand placement should be by one continuous flow from one side. Vibrating of microconcrete should be avoided.

Microconcrete must be cured immediately after placement and striking it off. Tec Cure<sup>R</sup> WB is recommended as the curing compound. Proper curing minimizes surface dusting, checking and cracking. Leave forms in place as long as possible to take advantage of the forms for an excellent cure. Proper curing is extremely imperative.

**TECHNICAL DATA**

Physical State	Cementitious Powder blended with 6mm downgraded aggregates
Grain Size	0-6mm
Yield (of one 50 Kg bag of Tec Grout MC when mixed with 6-8lts of water. Compressive Strength: Fluid consistency	25-28Lts
1 Day	10 N/mm <sup>2</sup>
2 Days	27 N/mm <sup>2</sup>
7 Days	38 N/mm <sup>2</sup>
28 Days	50 N/mm <sup>2</sup>
(Water: Powder Ratio: 0.16 at 30°C)	
Compressive Strength: Mortar Consistency (1 part Tec Grout MC with 0.75 parts 10-12mm aggregates)	
1 Day	13 N/mm <sup>2</sup>
3 Days	33 N/mm <sup>2</sup>
7 Days	43 N/mm <sup>2</sup>
28 Days	53 N/mm <sup>2</sup>
(Water: Powder Ratio: 0.16 at 30°C)	
Linear Expansion : Un-restrained	1-4%%
Storage	Store in cool, dry location
Shelf Life	Maximum of 1 year from date of manufacture in unopened package
Colour	Grey

**PACKAGING**

Available in: 50Kgs HDPE bags.

**OTHER PRODUCTS**

Techny manufactures lot more range of other products for construction and repair applications. They include admixtures for concrete, mortars, block making etc, waterproof and damp proof coating systems, Repair and rehabilitations products, Grouts and Anchors, Protective, Decorative and Corrosion prevention coatings, Epoxy Flooring systems, Industrial flooring systems and Tiling aids. For more details refer Separate Product brochures.

Every reasonable precaution is taken in the manufacture of the Techny products to ensure that they comply with high standards of quality. The recommendations and properties of the products are based upon what is believed to be the most reliable information available and are not intended as recommendations which infringe other patents. Although all Techny products are subject to rigid quality tests, no specific guarantee can be given, because results depend not only on quality but also on other factors beyond our control. We therefore welcome consultation in the event of doubt about application performance etc but do not accept any liability either directly or indirectly arising from the use of the products whether used as per its specifications or advice or otherwise. All transactions shall be subject to our terms of sale, delivery and payment. The leaflet supercedes the previous one and any new issue may take place without notice to supercede this edition as and when it becomes necessary.

TECHNICAL DATA SHEET  
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