



## TufBuild MC

### Shrinkage Compensated Polymer Modified Free Flowing Micro Concrete

#### Uses

- Used as a repair concrete for filling large volume voids where the depth is generally in excess of 40mm.
- Used to reconstruct heavily congested areas and areas with difficult access.
- Used as a capping medium in pile head waterproofing.
- Used in repairs requiring significant levels of load bearing.
- Used in repairs to columns suffering from major loss of section.

#### Typical Applications & Advantages

- Since it is a shrinkage compensated grout, it enables the repairs to be completed first time itself.
- Its high early and ultimate strength enables formwork to be stripped at an early age thus minimizing delays.
- Specifically developed to provide an easy to apply product, suitable for local conditions.
- Works in tandem with extremely low permeability to prolong effective working life.
- Dual expansion system which compensates for shrinkage in the plastic and hardened phases of curing.

#### Standards Compliance

TufBuild MC complies with the requirements of the following standards:

BS 1881: 1983

ASTM C 579 – 01 Method B

#### Product Description

TufBuild MC is a ready to use blend of dry powders, selected aggregates, fillers, shrinkage control agents and fluidifiers. When mixed with the stated amount of water it produces a free flowing, cohesive, precision concrete that hardens to produce a dense, durable surface.

#### Typical Properties

<b>Compressive Strength</b>	
@ 3 days	> 45 N/mm <sup>2</sup>
@ 7 days	> 60 N/mm <sup>2</sup>
@ 28 days	> 75 N/mm <sup>2</sup>
<b>Tensile Splitting Strength</b>	
@ 7 days	3.90N/mm <sup>2</sup>
@ 28 days	4.55N/mm <sup>2</sup>
<b>Flexural Strength</b>	
@ 7 days	7.30N/mm <sup>2</sup>
@ 28 days	9.90N/mm <sup>2</sup>
<b>Yield</b>	12.0litres
<b>Wet density@25 °C</b>	2400 kg/m <sup>3</sup>

#### Technical Support

GIC provides a comprehensive technical support service to specifiers, end users and contractors and is able to offer on-site technical assistance.

#### Instructions for Use

**Surface Preparation:** The concrete to be treated must be free from dust, loosely adhered material, and plaster and cement droppings, grease oil and paints etc. On old concrete ensure the substrate is structurally sound prior to application. Roughen the surface by sandblasting or stone rubbing to remove surface laitance. Reinforcement must be cleaned and all corrosion removed before application. Steel surfaces should be primed with TufBuild ZP immediately after cleaning.

The perimeter edges of the repair should be saw cut to 20 mm to ensure there are no feather edges. Formwork should be grout tight and water-tested prior to application. Ensure minimum cover to all reinforcement.

**Priming:** Priming is not required for most applications. The substrate must be thoroughly soaked to an ideal state of saturated surface dry (SSD). This will prevent absorption to the parent concrete.

**Mixing:** Only mix as much TufBuild MC as is required for immediate use. It is essential that forced action mixers be used as through mixing is required to achieve the specified results.





**TufBond**

Since **TufBuild MC** is a precision concrete it is important that care is exercised in mixing and placing. The amount of water to obtain the desired consistency can be varied according to site conditions but should not exceed 3.50 litres per 25kg bag. (Under laboratory conditions at an ambient temperature of 25°C, 2.75litres/25kg will give the required flow and consistency). Under no circumstances **TufBuild MC** should be re-tempered by the later addition of water. Damp down the inside of the mixer with water prior to mixing the initial batch and ensure the mixer is damp but free of standing water. Add the pre-measured quantity of water. Slowly add the **TufBuild MC** powder mixing continuously. Mix for 3 to 5 minutes until a smooth, uniform, homogenous mix is achieved.

**Placing:** **TufBuild MC** should be placed in a single continuous operation. Poured material should be introduced slowly to prevent entrapment of air. It is essential to place the mixed material within 30 minutes of batching.

**Curing:** **TufBuild MC** must be fully cured as with all cementitious materials to ensure the optimum properties are obtained.

### **Packaging & Storage**

**TufBuild MC** is available in 25 kg bags and has a minimum shelf life of 12 months provided it is stored under cover, out of direct sunlight.

### **Health & Safety Precautions**

**TufBuild MC** does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately – do not induce vomiting.

For further information refer to the Material Safety Data Sheet available for this product.

### **Important note**

GIC endeavors to ensure that the technical information contained herein is true, accurate and represents our best knowledge and experience. No warranty is given or implied, as

GIC has no control over the conditions of use and the competence of any labor involved in the application are beyond our control.

**As all GIC technical data sheets are updated on a regular basis it is the customer's responsibility to check that the product is suitable for the intended application, and that the actual conditions of use are in accordance with those recommended.**

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