



**Green Build
Egypt**
Experience and Innovation

GBGROUT MC

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Fiber-Reinforced, Non-Shrink, cementitious, High Strength, and Flowable, Structural Micro-concrete

GBGrout MC Technical Specifications

- Appearance: Gray powder contains egg. Up to 5 mm.
- Mixed Density : 2.2 ± 0.05 gm/cc.
- Initial Setting: 3-4 hours.
- Final Setting : 6 - 7 hoursC.
- Compressive Strength: 70-75 N/mm² (28 days).
- Standards: ASTM C1107 Grade C.
- Flexural Strength (ASTM C78) : 9 N/mm².
- Tensile Strength: 3 N/mm².
- Shear Bond to concrete : 4-5 N/mm².
- Initial Flow : 20-24 cm (Flow Cup Test)
- Volume Change (Unrestrained) (ASTM C-827) : 1-2% by Volume.

Application and Rates

- High flowability to ensure maximum filling ability and maximum load bearing.
- **GBGrout MC** supplied in double layer polyethylene plastic packs weighing 25 Kg producing 14 lit. of microconcrete.
- Applied easily by pouring into voids or under base plates.

Product Handling and Storage

- Store all material in a cool, covered dry place. Do not expose the packs to direct sunlight and keep away from all sources of heat. In tropical climatic conditions, the product has to be stored in suitable environment and protected from high humidity.
- The shelf life of the product is 12 months in unopened condition if stored as per the recommendations. Exposure to high temperature and humidity will result in considerable deterioration of the product and reduce its shelf life.



GBGrout MC, Features:

- It is a High performance cement-based, fiber-reinforced structural microconcrete for various types of large filling under base plates of machines, columns, and structural units It provides high compressive strength flowable microconcrete.
- Shrinkage compensated properties, ensures maximum load bearing for steel plates, and low cracks pattern for floor leveling.
- It is easy to mix, pour and fill all voids specially under machine base plates, and for structural columns and various concrete elements.
- Low water mixing ratio, to ensure the highest compressive and mechanical strength.
- Premixed and properly packed to avoid site variation and errors.
- Can be used up to 350 mm thickness between plate and foundation and for large pours in general.



Applications

- Covering weak concrete floor slabs.
- Filling structural voids to ensure maximum mechanical properties.
- Filling under machines base plates to get maximum load bearing.
- Anchoring of crane rails towers and dock sills.
- Sealing of tie rod holes.
- Pile head encapsulation to ensure water tightness.
- Where high performance grouting application is needed.
- **GBGrout MC** could be used to repair damaged horizontal industrial floor areas.
- **GBGrout MC** is used in Bridge bearing pads.

Health and Safety

As with all construction chemical products, caution should always be exercised. Protective clothing such as gloves and goggles should be worn. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

Application Procedure:

Surface preparation: The surface should be clean, free of dust, demolding agents, oil, paint etc. Saturate the area to be grouted with water at least 2 hours prior to grouting. The surface should be damp, but strictly free of standing water. Whenever form work or shutter is used, make sure that all the joints are sealed properly to avoid grout loss.

Mixing mixing paddle or a grout mixer. Add 3.75 – 4.25 litres of clean cool water in a container. Add **GBGrout MC** slowly and mix continuously for a minimum of 3 minutes to obtain a smooth, uniform lump free consistency.

Application Grouting should be done continuously. Therefore make sure that sufficient grout is prepared before starting. While filling voids, grout should be poured from one end to avoid air pockets.

GBGrout MC has to be poured to the base plate or voids, pour continuously until getting excess material from the top of the void or the other side of the base plate, a plastic or iron wire may be used to compact the material and release air voids from the mortar.

Place or pour all the mixed grout within 15 minutes of mixing to obtain best results.

GBGrout MC can be poured from minimum 15 mm to 250 mm in one single pour.

For Covering concrete floor slabs a thickness of 50 to 100 mm could be applied in one layer.

Curing:

Cover all exposed areas immediately after placing with a polyethylene sheet, or use **NanoCure** by spraying as an effective curing agent.

Cleaning Clean all tools & equipments with water immediately after use. Hardened materials can be removed mechanically only.



www.greenbuildegypt.com
info@greenbuildegypt.com
<https://www.facebook.com/GreenBuildEgypt>

Customer Service: 01050240446/ 01114544492
 LandLine: 02-28607233
 51 First Industrial Area Badr City, Cairo, Egypt.

