

**CGM-T60****HIGH STRENGTH NON-SHRINKAGE GROUTING MATERIAL****ABOUT THE PRODUCT**

QMAX Grout™ - a premixed cementitious grout that is developed for construction applications where grout with good flow, strength and cost-effectiveness solutions are required.

This material compounds with various admixtures, selected aggregates, supplements by high-flowable, micro-expansive and anti-segregate materials. The product has various features including but not limited to high-strength, non-shrinkage, micro-expansion, self-flowing, vibration-free, non-toxic, harmless, non-aging, water and surrounding environment contamination free, good self-tightness, anti-rust, etc.

This non-shrinkage grout fundamentally changes the bearing strength of the equipment base as a result it evenly bears the full load of the equipment, meeting any installation requirement of various machines, heavy equipment and high-precision machine tools.

Though QMAX Grout™ was designed primarily as a flowing grout but it can be used in trowellable or dry pack consistency.

QMAX Grout™ compiles with BS EN 1504-3 and -6.

**TECHNICAL SPECIFICATION**

All tests were carried out at max. Water addition of 5 liters at 20°C unless otherwise stated.

Compressive strength (MPa) 28 days	≥85
Liquidity (mm) initial value	≥295
Vertical expansion rate (%), expansion value difference between 3h & 24h	0.1
Reinforcement grip strength (round steel)/MPa	≥4.3
Bleeding	0
Corrosive effect on steel bars	No

TECHNICAL DATASHEET

**Q-MAX™**  
GROUT
**USAGE**

Since, its high strength and 28 days compressive strength can reach more than 85 MPa, it can be used for the follow:

- ❖ Bolt anchoring
- ❖ Steel structure and foundation joint reinforcement
- ❖ Secondary grouting of equipment foundation
- ❖ Installation of electric and mechanical equipment
- ❖ Sealing of static pressure pile engineering
- ❖ Reinforcement and transformation of high-grade concrete structure
- ❖ Crack treatment of old concrete structure
- ❖ Thickening of wall structure
- ❖ Reinforcement of road and bridge engineering, etc.

**FEATURES & BENEFITS**

- ❖ **QMAX Grout™** is shown to be effectively non-shrink by ASTM C827 Early Volume Change of Cementitious Mixtures which, unlike other methods, measures expansion or shrinkage from time of placing
- ❖ Volume expansion to ASTM C827 when unrestrained is greater than 1.0%
- ❖ Precision grout suitable for use over a range of temperatures and site conditions
- ❖ Can be pumped, poured, troweled or dry packed
- ❖ Does not contain iron, aluminum or other additives which have not withstood the tests of time
- ❖ Thermal expansion similar to that of good quality concrete
- ❖ Good flow properties
- ❖ Can be applied in thickness from 10 mm to 100 mm
- ❖ Does not significantly lose workability during pot life





## PREPARATION

All surfaces should be clean and sound. Concrete surfaces must be free from any contamination including oil, grease, laitance and dust – and for maximum bond, the surface should be roughened and pre-soaked with clean water.

Immediately prior to grouting, remove free water including that in bolt holes or recesses.

Metal surfaces must be free from rust, scale, oil or grease but removable metal shims should be lightly oiled.

Ensure bolt holes are free of dust, water or any loose material. Formwork should be well sealed to prevent leakage.

**Dosage (add awater):** 13% - 15%

**Coverage:** 2300 kg/m<sup>3</sup>

## MIXING

This grout needs only to be mixed with sufficient water to give the consistency required. Mixing should be carried out in a proprietary grout mixer or in a bucket (where the height is at least 1½ times its diameter) by using a medium-speed drill (650 rpm) with an MR4-type helical attachment.

When using the maximum water to obtain a pourable grout, the following procedure is recommended. Pour about 2 liters of water into a suitable bucket, then add half the powder and mix to a thick paste consistency, ensuring any lumps are broken down by the shearing action. Continue mixing, adding more powder and some more water gradually into the vortex. After adding all the powder and having produced a mix of uniform creamy consistency, add the rest of the water slowly into the vortex to obtain the pourable grout. **Do not mix the grout for more than 5 minutes.**

Avoid entraining excessive quantities of air during mixing by keeping the mixing head below the grout level at all times.

To obtain consistency required, add water as follows:

**Dry pack mix**      Approx. 2.25 liters of water per 25 kg bag

**Trowellable mix**      Approx. 3.5 liters of water per 25 kg bag

**Pourable mix**      Up to 5 liters of water per 25 kg bag

## APPLICATION

When pouring, the area to be grouted should be shuttered and a header box used to maintain a grout head of 150 – 200 mm during the pour. Machine mixing is recommended to achieve continuous pouring. For large applications **QMAX Grout™** should be placed by pump and has been formulated to give a 35 minute working time. It does not contain metal particles; wear and tear on equipment is similar to conventional sand/cement mixes.

Mixing and placement can be carried out between +5°C and +40°C. In service, **QMAX Grout™** will perform similarly to other cementitious mixes based on Portland cement in the temperature range of -20°C to +150°C.

Continuous grout flow is essential and sufficient grout and water should be available to be mixed to ensure there is no discontinuity of the flow. The grout around the edges of baseplates must be finished flush with the sides by cutting the grout while still green after stripping formwork. Cracking due to expansion may result in such areas where there is no restraint.

## CHEMICAL RESISTANCE

When properly placed and cured **QMAX Grout™** is a dense low permeability material which does not suffer damage from frost attack and freeze/thaw conditions. The product does not contain any chlorides, sulphate or other harmful chemicals. Its permeability means it is highly durable and resistant to petrol, oils, diesel fuels, anti-freeze liquid and de-icing salts.

## PACKAGING

**QMAX Grout™** is supplied in 26.5 kg moisture proof packaging.

## STORAGE & SHELF LIFE

It can be stored for 6 months under the condition of dry sealed bag. If stored more than 6 months need test before use.

## HEALTH & SAFETY

Contains cement (contains chromium (VI) which may cause allergic reaction.) Harmful if inhaled. Irritating to eyes and skin. Keep out of reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical help. After contact with skin, wash immediately with plenty of soap and water. Water suitable protective clothing, gloves and evey/face protection.

The technical information and application advice given in the Q-MAX Global Co. (BD) Ltd. technical data sheet are accurate which are based on the present state of our best scientific and practical knowledge. However, as conditions of use and any labor involved are beyond our control, the end user must satisfy himself by prior testing that the product is suitable for his specific application, and no responsibility can be accepted. or any warranty give by our Representatives, Agents or Distributors. Products are sold subject to our Standard Conditions of Sale and the end user should ensure that he has consulted our latest literature.

## TECHNICAL SERVICES

**QMAX Grout™** Customer Service Department has a team of experienced advisors available to provide on-site advice both at the specification stage and during application. Detailed specifications can be provided for specific projects or more general works. Site visit and on-site demonstrations can be arranged on request.

## SALES ENQUIRIES

**QMAX Grout™** products are distributed throughout Bangladesh via selected distributors and dealers. Please contact the relevant Sales team for all product orders and enquiries.



+880-2-48110667  
+8801314559566



**Q-MAX™**

**Q-MAX Global Co. (BD) Ltd.**

House# 1/E/2 Ground floor, Adarsha Chayaneer, Ring Road, Dhaka 1207, Bangladesh  
info@qmaxbd.com | www.qmaxbd.com