

MasterRoc MG 01

High yield thixotropic cable bolt grout

Material Description

MasterRoc MG 01 is a high yield, shrinkage compensated and thixotropic grout for placement of cable and rock bolts in civil tunnels and underground mines.

Areas of Application

MasterRoc MG 01 is particularly suitable as a grout used for the encapsulation of roof bolts and cable anchors where the "top-down" grouting method is preferred.

MasterRoc MG 01 has been specially developed to give a high yield (volume) of grout without segregation or bleed whilst providing excellent compressive strengths.

Characteristics & Benefits

- Extremely pumpable but shows rapid thixotropy to restrict flow into surrounding strata
- Economical to use, due to high yield and rapid thixotropy
- Small grout tube diameters mean smaller diameter drill holes can be used
- Eliminates the requirement for sealing of the collar and plate with cotton waste etc
- Good ultimate strength to ensure the permanence and safety of critical installations
- Extended working time (over 30 minutes at 20°C) enabling easier cleanup of pumps and hoses
- Shrinkage compensated for greater bond strength to surrounding strata
- High bond to steel

Performance Characteristics

Grout strength development is dependent on the amount of mixing water, ambient temperature, age and curing. Typical rates of compressive strength development for 20kg of **MasterRoc MG 01** grout with 6.5l of water under controlled laboratory conditions are shown below:

Compressive Strength – Typical results (AS1478.2 Appendix A. restrained 50mm cubes at 23°C)

1 Day	7 Days	28 Days
30MPa	65MPa	80MPa

Mixing Equipment

For best results mix using a high mechanical shear or paddle mixer. Any grout pump must have accurate water dosage facilities.

Mixing

MasterRoc MG 01 is supplied ready to use, requiring only the addition of potable water. Do not use hardened or lumpy grout caused by torn or water damaged bags.

Fill mixer with correct volume of water to match number of bags of **MasterRoc MG 01**. A good mixer should have an accurate method of determining the water content.

Start the mixer and slowly add **MasterRoc MG 01** powder. Continue mixing the grout until a thick creamy, no-lump consistency is obtained.

Actual amount of water will depend on the desired consistency of the grout required and the grout pump available. As a guide, use 6.5-7.5 litres per 20kg bag.

Do not use excess water (above 7.5 litres for thixotropic mixes). Discard any grout that has been left in excess of 60 minutes. Do not retemper.

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Placement

Master Builders Solutions provide a range of support services which includes operator training and underground audits. Each service package is developed to suit individual site requirements.

It is strongly recommended that a review with fully trained and qualified Master Builders Solutions personnel is conducted prior to placement of **MasterRoc MG 01**.

Cleaning

As with all grouting operations, systematic cleaning of the pump and grout lines with clean water is essential. This should be done immediately after completion of grouting operations. If delays occur for greater than 1 hour, the batched grout should be discarded and the pump and grout lines cleaned.

Estimating Data

20kg of **MasterRoc MG 01** grout with 7.5 litres of water will yield approximately 14.5 litres (0.0145m³).

Disclaimer

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