

"At a recent longwall face road, we were met with difficult ground conditions and a sub-par grout for cable bolt anchoring. This combination of factors resulted in only 67% of cable bolts being installed successfully.

After many failed attempts, we began trialling MasterRoc MG 01 which offered large improvements in mixing, pumping and placement.

Once we began using the MG 01 along the face road, more than 88% of the cable bolts were successfully installed on the first attempt, resulting in a faster and safer longwall bolt up."

Joshua Hurt Mining Engineer, Underground Mine, Northern NSW

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.

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 Restrained 50mm cubes at 23°C)

Day
 Days
 Days
 BomPa
 MPa
 MPa

CHARACTERISTICS AND 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