

MasterRoc[®] MG 10 NA

High Yield Thixotropic Non-Shrink Grout

Description

MasterRoc MG 10 NA is a thixotropic, high yield, and shrinkage compensated grout used for placement of cable and rock bolts in tunnels and underground mines.

Applications

MasterRoc MG 10 NA grout is suitable for the encapsulation of roof bolts and cable anchors where the “top-down” grouting method is preferred. MasterRoc MG 10 NA grout is specially designed to provide a high yield (volume) of grout mixture without segregation or bleeding that can develop excellent compressive strengths.

Features

- Highly pumpable; yet, exhibits rapid thixotropy
- Can be applied through small-diameter grout tubes
- Excellent strength development
- Extended working time (about 60 minutes at 68 °F [20 °C])
- Excellent bond to steel and surrounding strata

Benefits

- Restricted flow into surrounding strata
- Enables the use of smaller drill holes
- Eliminates the requirement for sealing of the collar and plate with cotton waste etc.
- Economical to use
- Enhances the safety of critical bolt and anchor installations

Performance Characteristics

Technical data

Compressive strength (Typical)*:

| Age | Compressive Strength** |
|--------|------------------------|
| 1 day | > 5,000 psi (35 MPa) |
| 7-day | > 8,500 psi (60 MPa) |
| 28-day | > 11,500 psi (80 MPa) |

* Strength development of grout is dependent on the amount of mixing water, ambient temperature, age and curing of the grout mixture. Actual results may vary.

** ASTM C109/C109M Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (using 2 in. [50 mm] Cube Specimens). Samples made with 44 lb (20 kg) of MasterRoc MG 10 NA grout and 1.7 gal (6.5 L) of water, at 73 °F (23 °C)

Guidelines for Use

Application Procedure: MasterRoc MG 10 NA grout is supplied ready to use; requiring only the addition of potable water.

Mixing 44 lb (20 kg) of MasterRoc MG 10 NA grout with 1.7 gal (6.5L) of water will yield approximately 3.6 gal (13.5 L) or 0.5 ft³ (0.0135 m³) of grout mixture.

Mixing Equipment: For best results, a high mechanical shear mixer or a paddle mixer should be used to mix MasterRoc MG 10 grout. The grout pump used must have accurate water dosing capabilities.

Mixing Procedure: Fill the mixer with the correct amount of water that matches the number of bags of MasterRoc MG 10 NA grout. As a guide, use 1.7 - 2.0 gal (6.5 - 7.5L) of water per 44 lb (20 kg) bag of MasterRoc MG 10 NA grout for a thixotropic mixture. The actual amount of water required will depend on the desired consistency of the grout mixture and the grout pump available. Do not exceed the amount of water recommended for obtaining thixotropic mixtures.

Start the mixer after adding the required amount of water. Slowly add MasterRoc MG 10 grout powder. Continue mixing until a thick, creamy, no-lump consistency is obtained.

Discard any grout mixture that has been left unattended for more than 60 minutes. Do not retemper.

Cleaning: As with all grouting operations, it is essential to systematically clean the pump and grout lines with clean water. This should be done immediately after completion of grouting operations. If the grouting operations delay for more than an hour, the batched grout mixture should be discarded, and the pump and grout lines cleaned.

Storage and Handling

Shelf Life: MasterRoc MG 10 NA grout needs to be stored in a dry place. When properly stored, MasterRoc MG 10 NA grout has a minimum shelf life of 12 months.

Safety: Standard precautions for handling chemical products should be observed. Avoid eye and skin contact and wear hand gloves and safety goggles. If contact occurs, rinse with plenty of water. In case of eye contact, seek medical advice. For further information, refer to the Safety Data Sheet.

Packaging

MasterRoc MG 10 NA grout is supplied in 44 lb (20 kg) moisture resistant bags.

Related Documents

Safety Data Sheets: MasterRoc MG 10 NA grout

Additional Information

For additional information on the MasterRoc MG 10 NA grout, contact your local sales representative.

Master Builders Solutions creates technologies for the construction industry inspiring people to build better. We are active in ~40 countries and operate 35 production sites with over 1,600 employees. We develop, produce, and market high-quality chemical admixtures, as well as adjacent core technologies, to master the challenges of today and support a decarbonized future. Our people are pivotal and pair leading technologies and a strong brand heritage to surpass our customers' expectations and drive continuous value creation.

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