

# MasterRoc<sup>®</sup> FLC 100

Shrinkage compensating and plasticizing powder admixture for anchoring and grouting

## Material Description

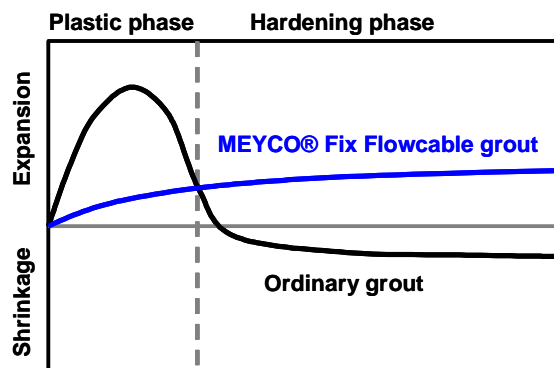
MasterRoc FLC 100 contains a very efficient water reducing agent, a shrinkage compensating component and thixotropic agents. It is added to cement at a rate of 3 – 6% by weight of cement to make a pumpable, thixotropic grout with a low water/cement ratio.

Due to the strong water reduction effect a w/c ratio of approximately 0.25 can be used. This allows the grout to achieve very high early and final strengths. MasterRoc FLC 100 has a very long working time to enable complete filling of the anchor hole or duct.

## Areas of Application

- Bolts and anchors in rock and soil
- Dowel grouting
- Duct and cable grouting

MasterRoc FLC 100 is designed specifically for rock bolts and rock anchors using both normal steel anchors and tube anchors. It is ideal for overhead applications because of its thixotropic nature, preventing the grout from running out of the drill hole. Due to its shrinkage compensating properties, it secures the bonding between anchor and rock, and ensures the steel of the anchor or rock bolt is not exposed to chemical attack. Without MasterRoc FLC 100, the grout's drying shrinkage reduces the bond of the grout to both the steel anchor and the surrounding rock/soil.



The slight expansion of MasterRoc FLC 100 grout ensures full bonding of steel anchors and rock bolts.

## Packaging

MasterRoc FLC 100 is available in 10 kg bags.

## Technical Data

Form	Pale grey powder
pH value	> 12 as grout mix (as with all cement grouts)
Solubility	low
Added chloride	zero

## Application Procedure

### Mixing

25 liters of potable water  
5 kg of MasterRoc FLC 100  
100 kg cement

1. Add approximately 95% of the water into the mixer.
2. Add 5 kg MasterRoc FLC 100 into the running mixer.
3. Slowly add the 100 kg of cement into the running mixer. Mix for 3 minutes until a lump free mixture is formed and adjust to final workability with the remaining water.

### Preparation

1. Always use a stiff PVC tube to pump the grout. A small piston or worm pump should be used.
2. Flush anchor holes with air or water before installation of the anchors.

### Pre-grouted anchors

1. Place the PVC hose in the bottom of the drill hole and start pumping.
2. Withdraw the pipe slowly. To ensure complete filling of the hole some surplus grout should be allowed to flow out of the hole when the anchor is installed.
3. Install the anchor and lock it into position so that it cannot move.

### Pre-grouted anchors, tube anchors

1. Connect the hose to the anchor and start pumping.
2. Continue until the grout is squeezed out between the disc and the rock. When grouting tube anchors, it may be necessary to make the grout more fluid. However, ensure

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that the grout is pumped into the hole and does not flow into it or there may be a risk of incomplete filling.

## Storage

If stored in unopened bags in a dry cool place MasterRoc FLC 100 has a shelf life of at least 12 months. Do not use the product if the bag has been opened for more than one month.

## Safety Precautions

MasterRoc FLC 100 is highly alkaline when wet. Avoid contact with the skin and eyes. Wash skin with soap and water on contact with the product. Should eye contact occur flush with plenty of clean water and seek medical advice.

During handling wear eye protection and a dust mask. The use of suitable gloves and/or a barrier cream is recommended.

## Disclaimer

The information given here is true, represents our best knowledge and is based not only on laboratory work but also on field experience. However, because of numerous factors affecting results, we offer this information without guarantee and no patent liability is assumed. For additional information or questions, please contact your local representative.

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