

MasterRoc[®] 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.

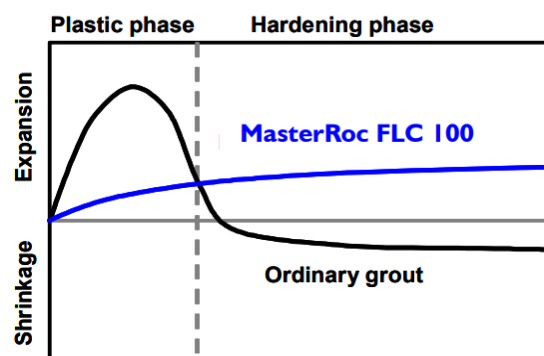
Due to the strong water reduction effect a w/c ratio of approximately 0.25 can be used. This allows the grout to achieve very high early and final strengths.

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.*

Processing Method

Mixing

Mixing Ratio

- 25 litres 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.

Technical Properties

Form	Pale Grey Powder
pH Value	> 12 as grout mix (as with all cement grouts)
Solubility	Low
Added Chloride	Zero

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

Packaging

MasterRoc[®] FLC 100 is available in 15 kg bags

Storage and Shelf Life

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.

Health and Safety

For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

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 technical information given in this publication is based on the present state of our best scientific and practical knowledge. **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is only responsible for the quality of the product **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

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