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MasterRoc® MP 800

Fast setting micro fine Portland cement for injection into rock and soil

DESCRIPTION

MasterRoc MP 800 is well graded cement milled from pure Portland cement clinker with a Blaine value of 800 m^2/kg.
Due to its small particle size it penetrates very well into tight joints, fissures and pore spaces to provide a water-tight grouted rock or soil mass. It achieves initial and final setting faster than standard micro and ultrafine cements. This increases productivity in a tunnel injection operation. The short open time of 1 to 1½ hours and a very short setting time of 2½ hours (at about 20° C) reduce the waiting time for the next excavation round to start to a minimum.

FIELDS OF APPLICATION

- Pre-injection in all underground structures
- Also possible for post injection
- Water ingress reduction
- Ground stabilization
- Contact injection

FEATURES AND BENEFITS

- Excellent penetration into tight joints, fissures and pore spaces
- Fast setting
- Durable
- Better working environment - no hazardous components
- Economical solution
- Standard cement injection equipment can be used

PACKAGING

MasterRoc MP 800 is supplied in 20 kg plastic bags and 1000 kg bags.

TECHNICAL DATA*

Fineness (Blaine)	> 800 m^2/kg
Particle size distribution:	
<40 micron	100 %
<30 micron	99 %
<20 micron	99 %
<15 micron	98 %
<10 micron	92 %
< 5 micron	58 %
< 2 micron	20 %

SETTING TIMES

The setting times, at a 1:1 w/c ratio (by weight) and at 20° C are as follows:

Initial set: 60-120 min (Measured by Vicat needle)
Final set: 120-150 min (1 mm penetration by Vicat needle)

Injection grout properties indicated below, relate to a mix containing 1.5% MasterRheobuild 2000PF:

Water/Cement ratio	1.0
Mud balance	1.48 - 1.50 kg/l
Flow cone	32 - 34 s
Bleeding maximum	2 %

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MasterRoc® MP 800

MIXING

MasterRoc MP 800 should always be used with MasterRheobuild 2000PF water reducing admixture (1.0 - 2.0 % of cement weight.) The w/c ratio (by weight) should normally be between 0.5 and 1.0.

- Fill the mixer with water
- Add MasterRheobuild 2000PF
- Add cement and mix for 2 minutes
- Transfer to agitator

It is very important to use an efficient mixer. Colloidal mixers give the best result. Minimum rpm for colloidal mixers is 1500.

NB: Do not over mix. Mixing longer than recommended may cause the grout temperature to increase and set in the pump and hoses.

POT LIFE

The mix should be kept under constant agitation prior to injection. Do not keep grout in agitator longer than 30 – 40 minutes.

INJECTION

High-pressure piston pumps are normally used to pump the suspension into the rock. The grout should be injected within 30 - 40 minutes after mixing to ensure that it keeps penetrating into the fissures. Longer open times can be achieved by using MasterRoc HCA 10 stabilizer hydration control admixture.

For much longer open times, an alternative is to use **MasterRoc MP 800** SR. This product is available on special request.

HARDENING

MasterRoc MP 800 will have set sufficiently after 2 - 2½ hours to allow drilling to commence for control or blast holes.

STORAGE

MasterRoc MP 800 has a shelf life of 9 months when stored in original closed bags in ventilated dry areas.

SAFETY PRECAUTIONS

Any physical contact (e.g. skin or eyes) made with the product should be avoided, as it may cause irritation or burns.

If such contact occurs, the affected area should be washed with plenty of clean water. In case of eye contact, seek immediate medical advice.

For further information please refer to the Material Safety Data Sheet or contact your local BASF representative.

* Properties listed are based on laboratory controlled tests.

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BASF_CC-UAE/Roc_MP800/v2/07_14

BASF Construction Chemicals UAE LLC
P.O. Box 37127, Dubai, UAE
Tel: +971 4 8090800, Fax: +971 4 8851002
www.master-builders-solutions.basf.ae