

MasterRoc MP 900 SR

Sulphate resistant ultrafine Portland cements for injection into rock and soil

MATERIAL DESCRIPTION

MasterRoc MP 900 SR is a sulphate resistant microfine Portland cement for rock and soil injection. Because of **MasterRoc MP 900's** small particle size and a specially adapted admixture system, it penetrates very well into tight joints, fissures and pore spaces to provide a water-tight grouted rock or soil mass.

MasterRoc MP 900 SR is a well-graded cement with a Blaine value of 900 m²/kg. It is milled from sulphate resistant Portland cement clinker with a low C₃A and low alkali content.

FIELD OF APPLICATION

- Rock injection: Tunnels, caverns, mines, etc., used for pre- and post-excavation injection. Ground water sealing and ground stabilization.
- Soil injection: Ground stabilization, ground water sealing.
- Concrete crack injection.
- Dam foundation injection.
- Prepacked injection.
- Contact injection.

FEATURES AND BENEFITS

- Standard cement injection equipment can be used.
- Better penetration in tight joints, fissures and pore spaces.
- Greater penetration imparts greater water tightness.
- Better working environment and no hazardous components.
- Durable.
- Economical solution.

PACKAGING

MasterRoc MP 900 SR is supplied in 20 kg plastic bags and 1000 kg bags.

TECHNICAL DATA*

Fineness (Blaine) > 900 m²/kg

Particle size distribution:

<40 micron	100 %
<30 micron	100 %
<20 micron	99 %
<15 micron	99 %
<10 micron	98 %
< 5 micron	73 %
< 2 micron	25 %
< 1 micron	12 %

SETTING TIMES

MasterRoc MP 900 SR has the same setting as normal fine cement with the initial set in > 4 hours.

Alkali (Eq Na₂O) 0.3 - 0.6 %

Tricalcium aluminate (C₃A) < 3.5 %

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

Mud balance 1.48 - 1.50 kg/l

Water/cement ratio 1.0

Flow cone 32 - 34 s

Bleeding (maximum) 2 %

APPLICATION PROCEDURE

MasterRoc MP 900 SR shall always be used with MasterRheobuild 2000PF water reducing admixture (1.0 - 2.0 % of cement weight.) Water/cement ratio shall normally be between 0.5 - 1.0.

Mixing:

- Fill the mixer with water
- Add cement. Mix for 2 minutes.
- Add MasterRheobuild 2000 PF and mix for another minute.
- 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.

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Pot life:

The mix should be kept under constant agitation prior to injection. **MasterRoc MP 900 SR** has a pot life in excess of 90 minutes.

Injection:

High-pressure piston pumps are normally used to pump the suspension into the rock. Moyno pumps are also suitable for lower pressure injection into rock and soil.

Hardening:

MasterRoc MP 900 SR has setting times comparable to regular Portland and other micro fine cements. It will have set sufficiently to allow drilling in less than 24 hours.

STORAGE

MasterRoc MP 900 SR has a shelf life of 6 months when stored in the original closed bags in ventilated dry areas.

SAFETY PRECAUTIONS

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

If such a 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 Master Builders Solutions representative.

NOTE

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local MB Construction Chemicals Solutions South Africa (Pty) Ltd representative. MB Construction Chemicals Solutions South Africa (Pty) Ltd shall not be liable for technical advice provided.

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* Properties listed are based on laboratory controlled tests.

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