

MasterRoc[®] MP 650 SR

Sulphate resisting micro fine Portland cement for rock and soil injection

Material Description

MasterRoc MP 650 SR is a well-graded cement with a Blaine value of 650 m²/kg. It is milled from sulphate resistant Portland cement clinker with a low C3A and low alkali content. Due to its small particle size and a specially adapted admixture system, it penetrates tight joints, fissures, and pores very well to provide a water-tight grouted rock or soil mass.

Areas of Application

- Pre-injection in underground structures
- Post injection
- Water ingress reduction
- Ground stabilization
- Contact injection

Characteristics and Benefits

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

Packaging

MasterRoc MP 650 SR is supplied in 20 kg plastic bags and 1000 kg bags.

Technical Data

Fineness (Blaine)	>650 m ² /kg
Particle size distribution	
<40 micron	100 %
<30 micron	99 %
<20 micron	97 %
<15 micron	93 %
<10 micron	79 %
< 5 micron	47 %

Setting Times

MasterRoc MP 650 SR has the same setting time as normal fine cement with the initial set in > 4 hours.

Injection grout properties indicated below, relate to a mix containing 1.5% MasterGlenium 151C:

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

Application Procedure

Mixing

MasterRoc MP 650 SR should always be used with a Master Builders Solutions High Range Water Reducing Admixture (HRWR - MasterGlenium or MasterRheobuild with 0.6 – 2 % of the cement weight). To prove the compatibility, it is recommended to do a pretest in regards of bleeding/segregation. The w/c ratio (by weight) should normally be between 0.6 and 1.0.

- Fill the mixer with water
- Add cement while running the mixer and mix for 2 minutes additional
- Add the Master Builders Solutions High Range Water Reducing Admixture and mix for 1 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. *NB: Do not over mix. Mixing longer than recommended may cause the grout temperature to increase and set in the pump and/or hoses.*

Pot life

The mix should be kept under constant agitation prior to injection. MasterRoc MP 650 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.

Hardening



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MasterRoc MP 650 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 650 SR has a shelf life of 9 months when stored in the original closed bags in ventilated dry areas.

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.

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.

Contact Details

Master Builders Solutions UK Ltd
Swinton Hall Road,
Swinton,
Manchester,
M27 4EU

Tel: +44 (0) 161 727 6300

www.master-builders-solutions.com/en-gb