

# MasterRoc<sup>®</sup> MP 323

Solvent-free, low viscosity, hydrophilic grout for rock injection and consolidation of sandy and silty strata

## DESCRIPTION

**MasterRoc MP 323** is a one-component injection system, based on a nanometric colloidal silica suspension of primary, discrete particles. Due to the hydrophilic nature of the product, the adhesion is also good to wet surfaces. The non foaming product contains neither solvents nor toxic component.

## FIELDS OF APPLICATION

- Pre-injection grouting for underground application
- Also suitable for post injection
- Ground improvement
- Water ingress reduction
- Slope stabilization.

## FEATURES AND BENEFITS

- Very low viscosity
- As the product is non-aggressive, it provides improved working safety
- No environmental impact
- Good bonding to wet surfaces
- Controlled gel time with the use of an accelerator
- Simple mixing and pumping equipment as used with cementitious grouts can be used

## TECHNICAL DATA

### MasterRoc MP 323

Color		Clear/cloudy
Viscosity	(20°C, AP-014)	max 12cP
Density	(20°C, AP-005)	1.21 kg/l
pH	(20°C, AP-009)	9.6 to 11.0
SiO <sub>2</sub> concentration		30 ± 1 %

### MasterRoc MP 320 series Accelerator

Color		Clear
Viscosity	(20°C, AP-014)	~1 mPa.s
Density	(20°C, AP-005)	1.07 kg/l
pH	(20°C, AP-009)	7

## Mixed material (values given are dependent on mix)

Color		Whitish/clear
Viscosity	(20°C, AP-014)	~5 mPa.s
Density	(20°C, AP-005)	~1.25 kg/l
pH	(20°C, AP-009)	~9 dependent on ratio

## APPLICATION

### Application procedure

The accelerator is added to Part A at the required ratio. Ensure Part A is continuously stirred during the addition of the accelerator, and fully pre-mixed prior to pumping.

The mixture of **MasterRoc MP 323** and the MasterRoc MP 320 series accelerator is workable between +5°C and +40°C. It is pumped with a one component pump, such as a cement grout injection pump, through an injection packer system into the strata. For slow migration into sand and gravels, a worm pump may also be considered.

**MasterRoc MP 323** and accelerator can also be injected using a two-component pump. In this case, a static in-line mixer is necessary to achieve a good mixing of the two components.

To achieve controlled, targeted injection into sands and gravels, it is advised to use double packers within tube à manchette injection tubes (often referred to as "TAMs" or "SPPs") with port centers dependent on the fineness of soils, and degree of stabilization required.

### Gel time

**MasterRoc MP 323** is produced in three different facilities worldwide. It is important to establish which product you have been supplied to choose the correct accelerator dosage for a given gel time.

The gel time may be adjusted by varying the quantity of accelerator for **MasterRoc MP 323** added to Part A.

It can be adjusted between 10 minutes and several hours as indicated in Figure 1. For long gel time, the temperature will have a big influence. Site tests are recommended.

# MasterRoc<sup>®</sup> MP 323

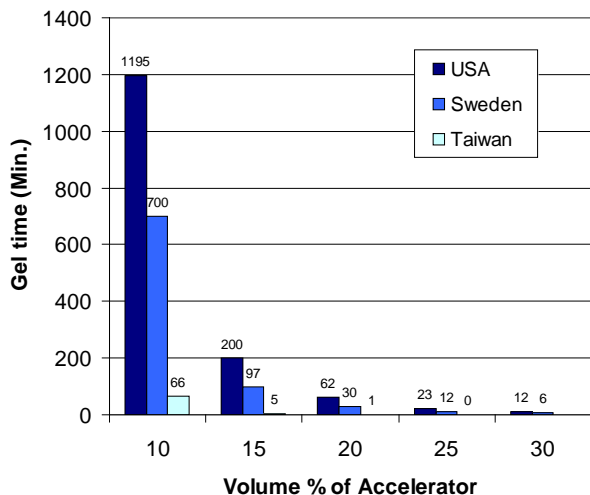


Figure 1: Adjustable gel time with varying accelerator dosage. Values given are at 8°C.

## PACKAGING

**MasterRoc MP 323** : 250kg drums

**Accelerator for MP 323** : 210 kg drums

## STORAGE

In unopened, tightly closed original containers, the components of **MasterRoc MP 323** may be stored for up to 18 months, if kept dry and within a temperature range of +5 to +35 °C. Protect from sunlight.

## SAFETY PRECAUTIONS

Colloidal silica will irritate the eyes and the skin. Normal precautions (safety glasses, gloves and overall) should be taken. **MasterRoc MP 323** is physiologically harmless.

For further information, refer to the product Material Safety Data Sheet.

## CLEANING OF INJECTION EQUIPMENT

All equipment can be cleaned with fresh water.

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### STATEMENT OF RESPONSIBILITY

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