

MasterRoc MP 320

Low viscosity, non-solvent-based, hydrophilic mineral blend for rock injection and consolidation of sand and silt strata.

Material description

MasterRoc MP 320 is a single-component injection system, consisting of a nanometric colloidal silica suspension, free of solvents and toxic substances. The gel time can be adjusted by using an accelerator.

The temperature of use of the product must be between + 5°C and + 40°C.

The gel formation time can be adjusted by varying the amount of the special accelerator to be added to Component A of the MasterRoc MP 320 system.

The hydrophilic nature of the product allows good adhesion even on wet surfaces. Foamy reactions do not develop that can negatively affect adhesion. The injection equipment can be easily cleaned with water.

Fields of application

MasterRoc MP 320 has been designed for injections in finely cracked rocks, but above all for consolidation injections of sandy-silty sedimentary soils.

The product is particularly suitable for:

- pre-consolidation injections in tunneling in general;
- waterproofing interventions in tunnels already built (transudation, dripping);
- consolidation of degraded rocky slopes;
- improvement of the geotechnical characteristics of the soils (as a component of the various consolidation techniques);
- decrease in the risk of sand liquefaction.

Features and benefits

- Very low viscosity and therefore excellent penetration capacity.
- Regulation of the gel formation time.
- Good adhesion on wet surfaces.
- Product usable between + 5°C and + 40°C.
- Very simple mixing and pumping equipment, comparable to that used for cement slurries.
- Can be applied with one-two-component pumps.
- As the product is not aggressive, the safety and hygienic conditions of the working environment are respected.

Packaging

MasterRoc MP 320: 25 kg tanks, 1200 kg tanks.

Accelerator: 26.75 kg tanks, 2.5 kg and 1000 kg tanks.

Storage

If the material remains in storage in its original well-closed containers, the useful life of the product is 6 months, taking care to keep it at a temperature between 5°C and 35°C, not exposed to sunlight.

After 6 months, the product still remains usable for a long time, in this case a modest increase in the accelerator dosage may be required.

MasterRoc MP 320

Low viscosity, non-solvent-based, hydrophilic mineral blend for rock injection and consolidation of sand and silt strata.

| Essential characteristic | | |
|--|-------------------------|-------------|
| MasterRoc MP 320 (Component A) | Color | Milky white |
| | Viscosity, mPa s (20°C) | 9 |
| | Density, kg / l (20°C) | 1.3 |
| | pH (20°C) | 9-10 |
| Accelerator of the MasterRoc MP 320 series | Color | transparent |
| | Viscosity, mPa s (20°C) | 1 |
| | Density, Kg / l (20°C) | 1.07 |
| | pH (20 ° C) | 7 |
| Mixture: Component A + Accelerator (given values depend on mixing ratio) | Viscosity, mPa s (20°C) | 5 |
| | Density, Kg / l (20°C) | 1.25 |
| | pH (20 ° C) | 9 |

Directions for use

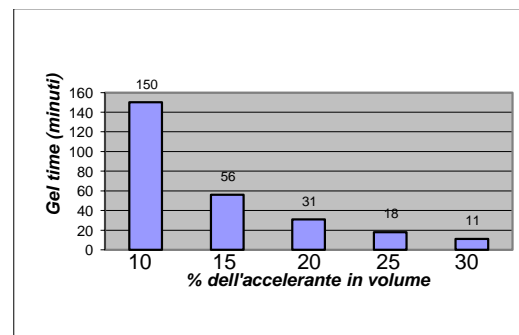
The accelerant is added to Component A in the desired %. Make sure that Component A (i.e. the nanosilica) is stirred continuously during the addition of the accelerator and totally premixed before pumping.

The mixture consisting of MasterRoc MP 320 and the appropriate accelerator is pumped with a normal single-component pump, similar to that used for the injection of cement slurry through an injection packer, even in valved pipes (TAM).

For a slow penetration into sandy-loamy soils, a screw pump can also be used.

Gel formation time

The gel formation time of the MasterRoc MP 320 depends on the dosage of the appropriate accelerator and the temperature and can be adjusted within an interval of between 10 minutes and 2 ½ hours.



Safety instruction

For information on the correct and safe use, transport, storage and disposal of the product, consult the most recent Safety Data Sheet.

MasterRoc MP 320

Low viscosity, non-solvent-based, hydrophilic mineral blend for rock injection and consolidation of sand and silt strata.

Other services

For additional technical information, brochures, references, technical reports and technical support please visit www.master-builders-solutions.com/it-it or alternatively contact infomac@masterbuilders.com.

Scan QR code to visit the product page and download the latest version of this technical data sheet and any additional documentation.



Disclaimer

Since 16/12/1992, Master Builders Solutions Italia Spa has been operating under a Certified Quality System compliant with the UNI EN ISO 9001 Standard. Furthermore, the Environmental Management System is certified according to the UNI EN ISO 14001 Standard and the Safety Management System is certified according to the UNI ISO 45001 Standard.

For further information, please consult the local Technician of Master Builders Solutions. The technical advice on how to use our products, either written or verbally given, are based on the current state of our scientific and practical expertise, and does not imply the assumption of any guarantee and/or responsibility for the final results of works executed using our products.

Therefore, the customer is not exempted from the exclusive task and responsibility of verifying the suitability of our products for the intended use and purposes.

This version supersedes all the previous ones.

Master Builders Solutions Italia Spa

Via Vicinale delle Corti, 21 – 31100 Treviso – Italia
T +39 0422 429200 F +39 0422 421802
www.master-builders-solutions.com/it-it
e-mail: infomac@masterbuilders.com