

MasterRoc[®] ACP 214

Anti-clay polymer for Tunnel Boring Machines (TBM)

Material Description

MasterRoc ACP 214 is a liquid polymer, specially designed for clayey soils with clogging and adhesion. The use of MasterRoc ACP 214 eliminates stickiness & adhesiveness of the clay, allowing easy and convenient transport of muck and reducing the risk of TBM blockage.

Areas of Application

MasterRoc ACP 214 anti-clay polymer can be injected into the cutter head and screw conveyor to facilitate the excavation and muck removal process during tunneling in sticky clayey formations. We advise prior trials for injection via foam generation units to assess any effects on the foam generators.

Characteristics and Benefits

- Breaks down clay, reducing its stickiness and adhesiveness, even under conditions of pressure and high temperature of the cutting head and in the mixing chamber
- Reduces the torque and increases TBM speed
- Avoids the formation of lumps which can block the cutting head
- Permits the reduction of separately injected water to decrease the torque
- Facilitates the evacuation of muck by screw conveyor & conveyor belt
- Ready to use product, no mixing required

Packaging

MasterRoc ACP 214 is available in 1000 kg IBCs and in bulk

Technical Data

Form	Liquid
Color	Dark brown
Density (g/cm ³) 20° C	1.116 ± 0.01
Viscosity (20° C)	< 60 bcw
pH (20° C)	Approx. 7

Application Procedure

MasterRoc ACP 214 can be used with normal foam generating systems. It can be used in dilution with water or together with MasterRoc SLF foaming agents. Other foaming agents can cause compatibility problems. For the first use and combination with other soil conditioning please contact your local Master Builders Solutions representative. Master Builders Solutions takes no responsibility for any possible secondary effects which are the result of the combination of MasterRoc ACP 214 with products not previously recommended by Master Builders Solutions.

Dosing System

The normal dosage of MasterRoc ACP 214 is between 0,5 – 2,0 kg per m³ of soil in situ, depending on the

- Quantity of water added
- Soil humidity
- Soil permeability.

We strongly recommend executing laboratory trials prior to the use of the polymer on the TBM in order to determine the optimum dosage and obtain a maximum benefit.

Handling

Tools and equipment impregnated with MasterRoc should be cleaned with plenty of water, preferably warm water.

Storage

MasterRoc ACP 214 should be stored in a clean, dry place at temperatures preferred between 5 – 30 °C, in its original sealed packaging, protected from freezing. Under these conditions, the product can be stored safely for one year. When a slight sediment may form, it does not affect the properties of the polymer.

Safety Precautions

Standard precautions for handling chemical products should be observed: Avoid eye and skin contact and wear rubber gloves and safety glasses. If contact occurs, rinse with plenty of water. In case of eye contact seek medical advice. For further information, refer to the Material Safety Data Sheet.



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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.

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