

MasterRoc[®] SWA 710

Strong Thickener for Soil Conditioning in Tunnel Boring Machines (TBM)

Material Description

MasterRoc SWA 710 is a liquid polymer, which is specifically designed for its use in ground and slurry conditioning. MasterRoc SWA 710 works as a binding agent restructuring the soil with a poor grading and low fines content, increasing its plasticity and cohesion, which helps to improve the balance of pressure in the working chamber, leading to better ground stability and soil extraction. MasterRoc SWA 710 can be used to enhance the performance of MasterRoc SLF foams and ACP soil conditioning products in difficult ground conditions, for example, in coarse soil with low fine content, or saturated soil with high water pressure.

MasterRoc SWA 710 is also suitable to use for an adequate sealing of the excavation face during hyperbaric interventions in combination with the injection of bentonite or filler slurries.

Areas of Application

- EPB and Slurry TBMs
- High ground water pressures, poorly graded or ground containing low number of fine particles, water saturated ground, and
- Bentonite slurry modification in case of high soil porosity or saline water conditions.
- Improving the yield and filter cake properties of bentonite and filler slurries.
- Lubricant for pipe jacking.

Characteristics and Benefits

- Structuring the soil, particularly effective in, coarse, clean sands and gravels below groundwater.
- Reducing soil permeability.
- Creation of plastic deformation properties in the soil providing an even and controlled support pressure and increased face stability.
- Lowering the inner friction and abrasiveness of the soil. Increasing cohesion of coarse sands and gravels.
- Improves the yield and filter cake properties of bentonite slurries.
- Ready to use - no mixing equipment required.

Packaging

MasterRoc SWA 710 is available in 1000-liter IBCs.

Technical Data

Form	liquid
Color	white
Density (20°C, kg/m ³)	1.05
pH (20°C)	7
Viscosity (DIN EN ISO 3219, 23°C, 250 l/s)	750 mPa.s
Solubility in water	miscible

Application Procedure

MasterRoc SWA 710 should be used independently, in which case it is injected directly to the working chamber or the screw conveyor.

The quantity of MasterRoc SWA 710 polymer needed depends on the soil conditions.

For the combination with other soil conditioning agents, please contact your local Master Builders Solutions representative.

Consumption

Trials should be conducted to determine the optimum concentration of polymer. The dosage depends on the application field and the amount of water content in slurry or excavated ground – please consult your local Master Builders Solutions representative.

Storage

The storage temperature of MasterRoc SWA 710 is between 5°C and 35°C. If stored in original, tightly closed containers under the above conditions, it will have a shelf life of 6 months. Do not allow the product to freeze. Please contact your local Master Builders Solutions representative prior to the use of any product that has frozen.

Precautions

MasterRoc SWA 710 contains no hazardous substances. However, standard precautions for handling chemical products should be observed. Avoid eye and skin contact and wear rubber gloves. 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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