

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

- Reducing soil permeability.

- Structuring the soil, particularly effective in, coarse, clean sands and gravels below groundwater.
- 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.

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

Packaging

MasterRoc® SWA 710 is available in 1000-liter IBCs.

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.

Technical Properties	
Form	Liquid
Color	White
Specific Gravity (20°C)	1.05 g/m ³
pH – Value (20°C)	7
Viscosity (DIN EN ISO 3219, 23°C, 250 1/s)	750 mPa.s
Solubility in Water	Miscible

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Storage and Shelf Life

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.

Health and Safety

For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapor until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is only responsible for the quality of the product **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is not responsible for results that may occur because the product is used other than advised and/or out of

instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

Contact

MBT Teknik Yapı Kimyasalları San. ve Tic. A.Ş.
Eyüp Sultan Mah. Sekmen Cad. Hayy 1000A
No:26/8 Sancaktepe, İstanbul
Tel: 0216 561 35 45 www.mbt-tech.tr
master-builders-solutions.com/en-tr