

MasterRoc[®] ACP 143

Formerly RHEOSOIL 143

Anti-clay polymer for earth pressure balance Tunnel Boring Machines (TBM)

Product description

MasterRoc ACP 143 is a liquid polymer, specially designed for clayey soils with clogging and adhesion.

Fields of application

MasterRoc ACP 143 creates a stable foam and can be used with the standard foam generators installed on EPB machines. It can be injected at the cutterhead, into the working chamber and screw conveyor.

Features and benefits

- Reduction of clogging and adhesion effects on the cutterhead
- Creation of a plastic soil material which can be easily excavated and transported
- Avoiding re-agglomeration of clay chips to blocks
- Reduction of cutterhead torque
- Increase in TBM speed

Packaging

MasterRoc ACP 143 is available in 200kg drums and 1000kg IBCs.

Technical data (typical properties)

Form	liquid
Color	light brown
Density (20°C, g/cm ³)	1,042 ± 0,02
Viscosity (20°C, Brookfield Sp.00)	< 160 mPa.s
pH (3% solution, 20°C)	7 ± 1

Application procedure

MasterRoc ACP 143 is used as an aqueous solution with typically 3 % concentration. Injected via a foam generator, the typical foam expansion ratio (FER) varies between 8 and 20, and the foam injection ratio (FIR) between 30 and 80. If the consistency of the muck needs to be reduced, MasterRoc SLP 1 or MasterRoc SLP 2 polymers

can be used in combination with MasterRoc ACP 143.

For the first use and combination with other soil conditioning please contact your local BASF representative.

Dosing system

MasterRoc ACP 143 can be used with the standard TBM dosing and foaming equipment.

Handling

Do not mix pure MasterRoc ACP 143 with any other pure soil conditioning additives as this may cause immediate gel formation. If several foaming products or polymers are used on the TBM, it is preferable to reserve a specific transfer or dosing pump for MasterRoc ACP 143. If a transfer or dosing pump is being used for more than one product, the pump should be cleaned with water before switching to other products.

Storage

Must be stored between 5°C and 40°C. If stored in original tightly closed containers it will have a shelf life of 12 months. Do not allow the product to freeze. It is recommended that your local representative be consulted prior to the use of any product that has become frozen.

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.

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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