

# MasterRoc<sup>®</sup> ACP 143

Readily biodegradable anti-clogging foaming agent for Tunnel Boring Machines (TBM)

## Material Description

MasterRoc ACP 143 is a foaming agent especially de-signed for soil conditioning in soft ground conditions, clayey soils with clogging and adhesion issues.

MasterRoc ACP 143 guarantees improved rheology of the excavated soil and facilitates extraction from outside the excavation chamber by reducing clogging and adhesion to metal parts of the machine.

MasterRoc ACP 143 is an eco-friendly foaming agent, based on readily biodegradable raw materials.

## Areas of Application

MasterRoc ACP 143 is designed for clayey soils in any kind of environments since it remains stable and homogeneous also when the temperature drops.

MasterRoc ACP 143 can be used with the standard foam generators installed in all EPB machines.

It must be injected at the cutterhead to the front into the TBM working chamber.

## Characteristics and Benefits

- Reduced clogging and adhesion effects on the cutterhead
- Creation of a plastic soil material which can be easily excavated and transported.
- Reduced wear of metal parts of the TBM
- Reduction of cutterhead torque
- Increase in TBM speed.
- Avoiding re-agglomeration of clay chips to blocks
- Creation of plastic deformation properties in clayey soil, which increases extraction.
- Lower inner friction and lower abrasiveness of the soil at the cutterhead and shield

## Packaging

MasterRoc ACP 143 is available in standard 1000 Liter IBCs and bulk.

## Technical Data

Form	Liquid
Color	light brown
Density (kg/l) 20° C	1.04

MasterRoc ACP 143 exhibits:

- Extensive clogging reduction in clayey soils
- Ensured reduction of adhesion to metal parts
- High foamability
- High Half-Life Drainage Time (HLT)
- High mechanical resistance and strength

## Application Procedure

MasterRoc ACP 143 is used as aqueous solution with a typical 1 % - 3 % concentration.

Easily injectable by any standard foam generator installed in TBM EPB machines.

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

## Dosing System

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

## Storage

MasterRoc ACP 143 must be stored between 5°C and 40°C. At low temperatures the product can become slightly turbid, but this doesn't affect the performance once remixed and homogenized being the formulation chemically reversible. Do not allow the product to freeze.

If stored in original tightly closed containers, it will have a shelf life of 12 months.

## Safety Precautions

Standard precautions for handling chemical products should be followed: Avoid eye, skin contact and wear rubber gloves and safety glasses.

For further information, refer to the Material Safety Data Sheet which you can obtain from our local Master Builders Solutions representative.



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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.

## Headquarters:

Master Builders Solutions Deutschland GmbH  
Glücksteinallee 43-45  
68163 Mannheim  
Germany

[ugc@masterbuilders.com](mailto:ugc@masterbuilders.com)

For more information, visit us: <https://ugc.master-builders-solutions.com/en/>