

# MasterRoc<sup>®</sup> ACP 130

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

## Product description

MasterRoc ACP 130 is the 2<sup>nd</sup> generation of anti-clay additives for tunnel boring machines. It is a liquid polymer, specially designed for clayey soils with very high clogging and adhesion, as well as for clays with a very high plasticity index. It is manufactured from natural, renewable resources and is a milestone in terms of environmental compatibility.

## Fields of application

MasterRoc ACP 130 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 particles
- Reduction of cutterhead torque
- Increase in TBM speed

## Packaging

MasterRoc ACP 130 is available in IBCs (1180 kg – slight variations depending on region).

## Technical data (typical properties)

|                                    |             |
|------------------------------------|-------------|
| Form                               | liquid      |
| Colour                             | dark brown  |
| Density (20°C, g/cm <sup>3</sup> ) | 1.18 ± 0,02 |
| Viscosity (20°C, Brookfield Sp.2)  | < 160 mPa.s |
| pH (3% solution, 20°C)             | 7,5 ± 1     |

## Application procedure

MasterRoc ACP 130 is used as aqueous solution with a typical 3%-5% concentration. Injected by 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 can be used in combination with MasterRoc ACP 130. For the first use and combination with other soil conditioning agents, please contact your local representative.

## Dosing system

MasterRoc ACP 130 can be used with the standard TBM dosing and foaming equipment.

## Handling

Do not mix pure MasterRoc ACP 130 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 130. 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. Please contact your local representative 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.

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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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