

# MasterRoc<sup>®</sup> ACP 212

## Water-soluble anti-clay soil conditioning polymer for Tunnel Boring Machines (TBM)

### Description

MasterRoc ACP 212 is a liquid anti-clay polymer specially designed for use with highly cohesive and adhesive soils (such as marl, silts, and clays that contain fine particles). MasterRoc ACP 212 anti-clay polymer can reduce or eliminate the stickiness and adhesiveness of the clay, allowing easy transport of muck, and reducing the risk of blockage at the cutterhead and in the excavation chamber under conditions of high pressure and high temperature.

### Applications

MasterRoc ACP 212 anti-clay polymer can be injected directly into the working chamber or at the cutterhead and the screw conveyor of the TBM

### Features

- Creates plastic deformation properties in the soil
- Lowers inner friction and abrasiveness of the soil at the cutterhead
- Reduces clogging and adhesion on the cutterhead and the screw conveyor
- Reduces cutterhead torque
- Prevents the re-agglomeration of clay from chips to blocks
- Excellent ability to disperse insoluble inorganic salts and soil particles

### Benefits

- Reduces risk of surface settlement
- Reduces soil blockage and promotes easy mucking
- Increases TBM advancement speed

### Performance Characteristics

#### Technical data

Form	Liquid
Color	Clear to slightly yellow
Density*	74.9 - 81.2 lb/ft <sup>3</sup> (1.2 - 1.3 g/cm <sup>3</sup> )
pH*	2 - 5
Viscosity* @68 °F (20 °C)	500 - 700 cP (mPa.s)

### Guidelines for Use

**Application Procedure:** MasterRoc ACP 212 anti-clay polymer can be used together with MasterRoc SLF foaming agents (such as MasterRoc SLF 419 product) or can be added directly into the water supply for the cutter head or the working chamber.

Do not mix MasterRoc ACP 212 anti-clay polymer with any soil conditioning additive that is not recommended by Master Builders Solutions, as this may cause immediate gel formation.

**Dosage:** The consumption rate of MasterRoc ACP 212 anti-clay polymer depends on the volume of soil excavated, amount of water added, soil humidity, and soil permeability. Typical dosage rate ranges from 0.8 to 3.5 lb/yd<sup>3</sup> (0.5 to 2.0 kg/m<sup>3</sup>). Tests should be conducted to determine the optimal dosage rates for your specific needs.

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

## Storage and Handling

**Storage Temperature and Shelf Life:** The storage temperature of MasterRoc ACP 212 anti-clay polymer is between 50 °F and 95 °F (10 °C and 35 °C). Do not allow the product to freeze.

If stored in the original and tightly closed containers, MasterRoc ACP 212 anti-clay polymer will have a shelf life of 12 months.

**Safety:** Standard precautions for handling chemical products should be observed. Avoid eye and skin contact and wear gloves and safety goggles. If contact occurs, rinse with plenty of water. In case of eye contact, seek medical advice. For further information, refer to the Safety Data Sheet.

## Packaging

MasterRoc ACP 212 anti-clay polymer is available in totes and drums. Bulk distribution is available upon request.

## Related Documents

Safety Data Sheets: MasterRoc ACP 212 anti-clay polymer

## Additional Information

For additional information on MasterRoc ACP 212 anti-clay polymer, please contact your local sales representative.

*Master Builders Solutions creates technologies for the construction industry inspiring people to build better. We are active in ~40 countries and operate 35 production sites with over 1,600 employees. We develop, produce, and market high-quality chemical admixtures, as well as adjacent core technologies, to master the challenges of today and support a decarbonized future. Our people are pivotal and pair leading technologies and a strong brand heritage to surpass our customers' expectations and drive continuous value creation..*

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