

# MasterRoc<sup>®</sup> ACP 220

## Anti-Clay Polymer for Treating Demanding Clays During Soil Conditioning in Tunnel Boring Machines (TBM)

### Description

MasterRoc ACP 220 is a next-generation, liquid anti-clay polymer formulated specifically for clay-rich soils with high clogging and adhesion tendencies. It reduces clay stickiness and adhesiveness, enabling easier and more reliable soil transport while minimizing TBM blockage risk.

### Applications

MasterRoc ACP 220 can be injected directly into the cutterhead, excavation chamber, or screw conveyor to improve excavation efficiency in sticky clay formations, to reduce the risk of TBM blockage, and to facilitate easy and convenient muck transportations.

### Features

- Breaks down clay, reduces its stickiness
- Prevents large lump formation
- Reduces cutterhead clogging risk
- Lowers torque requirements
- Improves soil consistency

### Benefits

- Reduces blockages at the cutterhead, working chamber, and muck transfer system
- Increases TBM advancing speed and production rate

### Performance Characteristics

#### Technical data (typical values)

Form	Liquid
Color	Transparent to yellowish
Density*	68.7 lb/ft <sup>3</sup> (1.1 g/cm <sup>3</sup> )
pH*	5
Viscosity (dynamic)*	< 60 cP (mPa.s)

@68 °F (20 °C)

### Application Guidelines

**Application Procedure:** MasterRoc ACP 220 anti-clay polymer can be used with standard foam-generating systems. It can be added directly into the water supply for the cutter head or the working chamber. It can also be used together with MasterRoc SLF foaming agents (such as MasterRoc SLF 419).

Do not mix MasterRoc ACP 220 anti-clay polymer with any soil conditioning additive that is not recommended by Master Builders Solutions, as this may cause immediate gel formation. Contact your local Master Builders Solutions representative before combining MasterRoc ACP 220 with other soil conditioning agents to ensure compatibility.

**Recommended Dosage:** The consumption rate of MasterRoc ACP 220 anti-clay polymer is based on the following factors:

- Volume of excavated soil
- Amount of added water
- Natural soil moisture
- Soil permeability

The typical dosage ranges from 0.8 to 3.5 lb/yd<sup>3</sup> (0.5 to 2.0 kg/m<sup>3</sup>).

Laboratory trials are strongly recommended to determine the optimum dosage for maximum performance.

**Handling and Cleaning:** Tools and equipment in contact with MasterRoc ACP 220 should be cleaned with water immediately after use.

**Storage and Shelf Life:** MasterRoc ACP 220 anti-clay polymer needs to be stored in tightly sealed containers in a cool and dry location. Storage temperature should be between 40 °F and 95 °F (5 °C and 35 °C). Avoid direct sunlight and freezing conditions.

If stored in the original tightly closed containers and in the recommended storage conditions, MasterRoc ACP 220 has a minimum 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 220 anti-clay polymer is available in 275-gallon (1041 L) IBC totes and 55-gallon (208 L) drums. Bulk delivery is available upon request.

## Related Documents

**Safety Data Sheets:** MasterRoc ACP 220 anti-clay polymer

## Additional Information

For additional information on MasterRoc ACP 220 anti-clay polymer, please contact your local sales representative.

## Limited Warranty Notice

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