

# MasterRoc<sup>®</sup> ACP 127

## Anti-clay polymer for earth-pressure TBM

### Description

MasterRoc ACP 127 is the second generation of anti-clay additives for tunnel boring machines. It is a liquid polymer, especially designed for clayey soils with high clogging and adhesion potential. MasterRoc ACP 127 anti-clay polymer is manufactured entirely from natural, renewable resources and presents a milestone in terms of environmental compatibility. Even during mineralization, no environmentally harmful intermediates are formed. It presents the top-grade of high quality soil conditioning products.

### Applications

MasterRoc ACP 127 anti-clay polymer creates a stable foam and can be used with the standard foam generators installed on earth pressure balance (EPB) machines. It is designed to reduce the clogging and adhesion potential of clayey soils. MasterRoc ACP 127 anti-clay polymer can be injected in the cutterhead, working chamber and screw conveyor.

### Features

- Reduces clogging and adhesion effects on the cutterhead
- Creates a plastic soil material which can be excavated and transported
- Mobilizes clay particles

### Benefits

- Helps to avoid re-agglomeration of clay particles
- Reduces cutterhead torque
- Increases TBM speed

### Performance Characteristics

#### Technical Data

##### Typical Values

Form	Liquid
Color	Dark brown
Density	67.4 ± 1.2 lb/ft <sup>3</sup> at 73 °F (1080 ± 20 kg/m <sup>3</sup> at 23 °C)
Viscosity	< 200 cP (mPa.s) at 73 °F (23 °C)
pH	7.5 ± 1

### Guidelines for Use

MasterRoc ACP 127 anti-clay polymer is used as aqueous solution with 3 to 5% concentration typically. Injected via a foam generator, the typical foam expansion ratio (FER) varies from 8 to 20 and the typical foam injection ratio (FIR) from 30 to 80. In case of necessary consistency reduction of the muck, MasterRoc SLP 1 liquid polymer or MasterRoc SLP 2 liquid polymer can be used in combination with MasterRoc ACP 127 anti-clay polymer. For the first use and combination with other soil conditioning agents, it is strongly recommended to contact your local sales representative.

### Dosing System

MasterRoc ACP 127 anti-clay polymer can be used with the standard TBM dosing and foaming equipment.

## Storage and Handling

**Storage Temperature:** The storage temperature of MasterRoc ACP 127 anti-clay polymer is between 40 °F and 105 °F (5 °C and 40 °C). If stored in tightly closed containers, MasterRoc ACP 127 anti-clay polymer will have a shelf life of 12 months. Do not allow the product to freeze. Consult your local sales representative before using any product that has frozen.

**Safety:** MasterRoc ACP 127 anti-clay polymer contains no hazardous substances requiring labeling. However, standard precautions for handling chemical products should be observed. Avoid eye and skin contact and wear hand gloves and safety goggles. If contact occurs, rinse with plenty of water. In case of eye contact, seek medical advice.

## Packaging

MasterRoc ACP 127 anti-clay polymer is supplied in 275 gal (1,040 L) totes and in bulk.

## Related Documents

Safety Data Sheets: MasterRoc ACP 127 anti-clay polymer

## Additional Information

For additional information on MasterRoc ACP 127 anti-clay polymer, contact your local sales representative.

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