MasterRoc® 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^3 at 73 °F (1080 ± 20 kg/m^3 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.

The Admixture Systems business of BASF's Construction Chemicals division is the leading provider of solutions that improve placement, pumping, finishing, appearance and performance characteristics of specialty concrete used in the ready-mixed, precast, manufactured concrete products, underground construction and paving markets. For over 100 years we have offered reliable products and innovative technologies, and through the Master Builders Solutions brand, we are connected globally with experts from many fields to provide sustainable solutions for the construction industry.

Limited Warranty Notice

BASF warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. BASF MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of BASF. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. BASF WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on BASF's present knowledge and experience. However, BASF assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. BASF reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

BASF Corporation
Admixture Systems
www.master-builders-solutions.basf.us

United States
23700 Chagrin Boulevard
Cleveland, Ohio 44122-5544
Tel: 800 628-9990 ■ Fax: 216 839-8821

Canada
1800 Clark Boulevard
Brampton, Ontario L6T 4M7
Tel: 800 387-5862 ■ Fax: 905 792-0651