

MasterRoc® SLF 41

Polymer Modified Foaming Agent for Heterogeneous Grounds with Variable Range of Permeability, Readily Biodegradable for Tunnel Boring Machines (TBM) Applications

Material Description

MasterRoc® SLF 41 is a foaming agent especially designed for soil conditioning in soft ground conditions, sandy soils with high water inflows. MasterRoc® SLF 41 guarantees improved rheology of the excavated soil, face stability and facilitates extraction from outside the excavation chamber. MasterRoc® SLF 41 is an eco-friendly foaming agent, based on readily biodegradable raw materials.

Areas of Application

MasterRoc® SLF 41 is designed for sandy soils with high amount of water in any kind of environments, since it remains stable and homogeneous also when the temperature drops. MasterRoc® SLF 41 can be used with the standard foam generators installed in all EPB machines. It can be injected at the cutterhead to the front, into the TBM working chamber and in the screw conveyor.

Characteristics and Benefits

- Ensured face excavation support pressure and control
- Improved TBM excavation cycle's time, quality and cost
- Facilitated muck extraction from tunnel and from the muck pit area
- Improved overall tunnel performance

- Reduced tunnel excavation time
- Reduced TBM maintenance costs
- Optimized muck logistics outside job site
- Minimized over excavation and contractual disputes
- Reduced risk of surface settlement

Technical

- Improved soil behavior
- Reduced soil permeability
- Creation of plastic deformation properties in the soil, which increases extraction
- Lower inner friction and lower abrasiveness of the soil at the cutterhead and shield

Application Procedure

MasterRoc® SLF 41 is used as aqueous solution with a typical 1 % - 3 % concentration. Easily injectable by any standard foam generator installed in TBM EPB machines. If the consistency of the muck needs to be reduced, MasterRoc® SWA and SLP polymers can be used in combination with MasterRoc® SLF 41. For the first use and combination with other soil conditioning agents, please contact your local Master Builders Solutions representative.

Packaging

MasterRoc® SLF 41 is available in standard 1000 Liters IBCs and bulk.

Storage and Shelf Life

MasterRoc® SLF 41 can be stored between 5°C and 40°C. At temperatures below 5 °C the product can become slightly turbid, but this doesn't affect the performance because it remains homogeneous. Do not allow the product to freeze. If stored in original tightly closed containers, it will have a shelf life of 12 months.

Technical Properties	
Form	Liquid
Color	Transparent
Specific Gravity (20°C)	1.04 g/cm ³
Solubility in Water	Total
MasterRoc® SLF 41 exhibits:	
High foamability	
Very Half Life Drainage Time (HLT)	
Very high mechanical resistance and strength	

MasterRoc[®] SLF 41

Polymer Modified Foaming Agent for Heterogeneous Grounds with Variable Range of Permeability, Readily Biodegradable for Tunnel Boring Machines (TBM) Applications

Dosing System

MasterRoc[®] SLF 41 can be used with the standard TBM dosing and foaming equipment.

Precautions

Standard precautions for handling chemical products should be followed. Avoid eye and skin contact and wear rubber gloves and safety glasses. For further information, refer to the Material Safety Data Sheet which you can obtain from our local Master Builders Solutions representative.

Ecological Information

MasterRoc[®] SLF 41 is eco-friendly and highly biodegradable as per international standards. Please consult Master Builders Solutions Material Safety Data Sheet.

Product Disposal Information

Deposition of excavated material conditioned with MasterRoc[®] SLF 41 on a landfill for inert materials as per the Council Directive 1999/31/EC dated 26.04.1999 on the landfill of waste (OJ L 182, 16.07.1999) shall be possible in any case.

Health and Safety

For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapor until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is only responsible for the quality of the product **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

Contact

MBT Teknik Yapı Kimyasalları San. ve Tic. A.Ş.
Eyüp Sultan Mah. Sekmen Cad. Hayy 1000A
No:26/8 Sancaktepe, İstanbul
Tel: 0216 561 35 45 www.mbt-tech.tr
master-builders-solutions.com/en-tr