

Cormix® SCF1

SOIL CONDITIONING FOAM FOR EPB TBM'S ENCOUNTERING CLAY & SANDY SILTY CLAY

DESCRIPTION

Cormix SCF1 is a liquid foaming agent formulated on biodegradable surfactants and highly effective polymers produced especially for soil conditioning with shielded tunnel boring machines. EPB tunneling methods requires the use of soil conditioners. Cormix provides a range of foams and polymers to provide solutions for difficult geological situations.

USES & ADVANTAGES

Cormix SCF1 is used in soft ground tunnelling with all varieties, makes and sizes of EPB TBM's. **Cormix SCF1** can be modified to match the properties of the soil to be excavated, trials are recommended at Cormix Laboratories to determine the most effective foam type.

Advantages include:-

- Produces a stable foam.
- Can be used in both basic & acid soils.
- Biodegradable.
- Improved soil behaviour with anti-settling characteristics.
- Environmentally friendly.
- Easier mucking prevents clay from clogging
- Can be modified for various conditions including use with hard rock tunnelling as an effective dust suppressant and abrasion reducer aiding the cutter disc life expectancy.
- Reduced permeability & improved sealing at the face.
- Can reduce stickiness of soils, reducing clogging.
- The soils properties are made more plastic giving more uniform and controlled support for improved stability at the face.
- Reduces friction & abrasion to the cutter head, screw conveyor & conveyor reducing wear costs and power consumption.
- Maintenance of pressure.

PROPERTIES

Form : Liquid
Colour : Transparent
Density : 1.03 ± 0.03 kg/ltr
pH : 6.5 - 9.5
Solubility : Totally soluble in water
If separation occurs mix vigorously.

APPLICATION

Foam is made by dispersing air into a solution of **Cormix SCF1**. It may be expanded with air to give a stable foam. The foam formula expansion & injection rate at the face, working chamber or screw conveyor will depend on the soils conditions. **Cormix SCF1** is available in various grades to meet the challenges of different soil conditions. The following are available and may be modified as needed : **Cormix SCF1** for clay and sandy clay silts, **Cormix SCF2** sand clay and silt, **Cormix SCF3** for sand, clay gravels, and sand gravels. These may be used in conjunction with **Cormix TBM P3**.

The foam type may be varied according to the soil conditions. The formulations available are relative to the different soils with varying FIR. FIRs may vary from 20-80%. Cormix foams are manufactured to deal with clay, sandy clay silts, sand clayey silts, sand clayey gravels and sandy gravels as well as other combinations.

DOSAGE

The normal dosage level of **Cormix SCF1** is between 1-3% by weight of water, foam may be strengthened or the soils properties modified by the addition of **Cormix TBM P3**. The FER will be between 10-30 whilst the FIR may vary considerably between 10-80%. Dosage will vary depending on soil conditions.

PACKAGING

25 litre plastic pails, 200 litre plastic drums or 1000 litre plastic IBCs.

STORAGE & SHELF LIFE

Shelf life is up to 9 months if stored in original unopened packaging in shaded conditions. Protect from moisture at 5-40°C.

HEALTH & SAFETY

As with all chemical products care should be taken during use and storage to avoid contact with skin eyes and mouth. If accidentally ingested immediately seek prompt medical attention, do not induce vomiting and give copious amounts of water to drink.

TECHNICAL SERVICE

The Cormix International Technical Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

QUALITY ASSURANCE

ISO 9001 : 2015 verified by TUV Nord.

ISO 14001 : 2015 verified by Lloyd's Register International.

DISCLAIMER

Performance data is achieved testing in accordance with International Standards. Testing by others may result in different results from those published as a result of external factors such as poor sampling, incorrect mixing, varying temperatures, curing, crushing procedures etc. Cormix does not take responsibility nor need to defend others testing that does not achieve the published data. The user must test the products suitability for the intended application and purpose. Cormix reserves the right to change the properties of the product. Site conditions and differences in materials are such that no warranty or fitness for a particular purpose, nor liability can be inferred from the published data sheet, written recommendations or from other advice offered.

CONTACT DETAILS

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