

**Cormix® SCF1****SOIL CONDITIONING FOAM FOR TUNNEL BORING MACHINES****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 tunnel boring machines. **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.
- Environmentally friendly.
- Easier mucking prevents clay from plugging.
- Can be modified for various conditions including for hard rock tunnelling dust suppression.
- Reduced permeability & improved sealing at the face.
- Can reduce stickiness of soils reducing blockages.
- Dust suppression in mining & hard rock tunnelling.
- The soils properties are made more plastic giving more even and controlled support & better stability at the face.
- Reduces friction heat buildup & abrasion to the cutter head, screw conveyor & conveyor reducing wear costs and power consumption.
- Maintenance of pressure.

**PROPERTIES**

<b>Form :</b>	Liquid
<b>Colour :</b>	Transparent
<b>Density :</b>	1.03 ± 0.03 kg/ltr
<b>pH :</b>	6.5 - 9.5
<b>Solubility :</b>	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 Polymer** range **Cormix SCF/P1**.

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 sand 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 SCF/P1**. 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.

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