

## Polymer Modified Soil Conditioning Foam

### DESCRIPTION

TamSoil 260CF is a polymerised soil conditioning foam specifically developed to be used on a tunnel boring machine (TBM). It acts as a soil conditioner for various types of soil conditions, especially below ground water table. TamSoil 260CF gives the excavated soil the necessary plastic properties and reduces wear at the cutterhead. TamSoil 260CF also creates a homogeneous and compressible spoil in order to reduce the cutterhead torque and secure a constant earth pressure in the working chamber during the excavating process.

### KEY BENEFITS

- > Efficient mixing with the excavated soil, reducing cutter head torque
- > Works with both acidic and alkaline type soil conditions
- > Reduces permeability at the tunnel face
- > Especially designed for the use below groundwater
- > Environmentally safe and non-toxic

### TYPICAL APPLICATIONS

- > EPB tunnel boring machinery
- > Soil conditioning
- > Change of rheological behaviour

### TECHNICAL DATA

TamSoil 260CF	
Appearance	Pale Liquid
pH (5% solution)	7 - 9
Density	1.02 - 1.03
Solubility in water	100%

All technical data stated herein is based on tests carried out under laboratory conditions.

### PACKAGING

TamSoil 260CF is supplied in 200 kg drums and 1000 kg IBC and bulk.

### ENVIRONMENTAL SUSTAINABILITY



Aquatic Toxicity: low

- > fish: LC<sub>50</sub> = 70 mg/l (OECD 203)
  - > daphnia: EC<sub>50</sub> = 75 mg/l (OECD 202)
  - > algae: IC<sub>50</sub> = 70 mg/l (OECD 201)
- Not hazardous to waters



Biodegradation: excellent

- > 86.0 % after 28 days (OECD 301 F)
- Readily biodegradable

### APPLICATION GUIDELINES

TamSoil 260CF is designed to create a stable foam when used on foam generators in tunnel boring machines. The foam concentration (cF), foam expansion rate (FER) and the foam injection rate (FIR) of TamSoil 260CF depends on the geology encountered during tunnelling and the cutter head design.

However, the TamSoil 260CF requires typically a foam concentration ranging from 1.5% to 4%.

Depending on the geology it might be recommended to add other TamSoil stabilising polymers. These will enhance the rheological behaviour of the soil further.

### STORAGE

TamSoil 260CF should be stored at room temperature (min 5°C and max 40°C), kept dry and out of direct sunlight or freezer condition. If these conditions are maintained and the product packaging is unopened, then a shelf life of one year can be expected.

### HEALTH & SAFETY

TamSoil 260CF should only be used as directed. We always recommend that the Safety Data Sheet (SDS) is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Safety Data Sheet is available upon request from your local Normet representative.