

Soil Conditioning System with Anti-Clay Properties

DESCRIPTION

TamSoil 287AC is a soil conditioning system with anti-clay properties specifically developed to be used on a tunnel boring machine (TBM). It acts as a soil conditioner for various types of soil conditions, especially clayey soils showing tendencies to cohesion problems as well as adhesion to metal surfaces. TamSoil 287AC gives the excavated soil the necessary plastic properties and reduces soil stickiness at the cutterhead, working chamber and screw conveyor. TamSoil 287AC 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
- > Reduces clay cohesion and adhesion effects
- > Improves spoil rheology
- > Environmentally safe and non-toxic

TYPICAL APPLICATIONS

- > EPB tunnelling in clayey ground conditions
- > Soil conditioning
- > Change of rheological behaviour

TECHNICAL DATA

TamSoil 287AC	
Appearance	Brownish Liquid
pH (5% solution)	9 - 10
Density	1.04 - 1.05
Solubility in water	100%

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

PACKAGING

TamSoil 287AC is supplied in 200 kg drums and 1000 kg IBC and bulk.

ENVIRONMENTAL SUSTAINABILITY



- Aquatic Toxicity: extremely low
- > fish: LC₅₀ = 3.000 mg/l (OECD 203)
 - > daphnia: EC₅₀ = 500 mg/l (OECD 202)
 - > algae: IC₅₀ = 500 mg/l (OECD 201)
- Not hazardous to waters



- Biodegradation: excellent
- > 77.6 % after 28 days (OECD 301 F)
- Readily biodegradable



- Sustainability: excellent
- > Based on re-newable raw materials

APPLICATION GUIDELINES

TamSoil 287AC 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 287AC depends on the geology encountered during tunnelling and the cutter head design.

However, the TamSoil 287AC requires typically a foam concentration ranging from 1.5% to 4%.

Depending on the geological conditions it might be recommended to add other TamSoil polymers. These can enhance the rheological behaviour of the soil further.

STORAGE

TamSoil 287AC 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 287AC 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.