



## **Modifoam A - foaming agent**

Modifoam A is a foaming agent designed for soil conditioning in tunneling processes using EPBM (Earth Pressure Balance Machines). The product is a specially formulated blend of surfactants, inhibitors, and polymers. Modifoam A is specifically dedicated to low-permeability soils, primarily composed of clays, silts, and muds.

### **PRODUCT DESCRIPTION**

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### **APPLICATION & DOSAGE**

The generated foam is injected into the working chamber during the tunneling process. The dosage of Modifoam A depends on geological conditions and the water content of the soil. The recommended dosage is 1.5-3% by weight relative to water.

FER (Foam Expansion Ratio): 1:5 to 1:20,

FIR (Foam Injection Ratio): 10% to 100%, recommended 30-60%.

Depending on the geology, additional agents such as Modistab TBM or Modisperg TBM may be required to enhance the performance of Modifoam A. These additives further improve the soil's rheological properties.

### **BENEFITS**

- Easily mixes with excavated material, improving the tunneling process and increasing TBM efficiency,
- Suitable for use in variable geological conditions,
- Provides lubricating properties, minimizing friction between soil particles and reducing the cutterhead torque,
- Prevents clogging and swelling of clay materials,
- Can be used with soft or hard water for foam production,

- Suitable for both acidic and alkaline soil types,
- Environmentally safe and non-toxic.

## **PROPERTIES**

Appearance: Colorless liquid,

Density:  $\pm 1050$  kg/m<sup>3</sup>,

pH: 7.5-9.5.

## **PACKAGING AND STORAGE**

Modifoam A is supplied in 200 kg drums or 1000 kg IBC containers.

The product should be stored in its original containers at temperatures between +5°C and +35°C. The shelf life is 12 months from the production date.