

Anti Abrasion Foam Agent for Tunnel Boring Machines

Product description

RAF-100 liquid foaming agent is designed for reduce abrasion and as a dust suppressant in hard rock tunneling and mining applications.

RAF-100 is a foaming agent especially designed for reduce abrasive wear to the cutting tools and substantially reduce dust formation during excavation as well as cutterhead clogging.

Field of application

- Soft ground tunneling with Tunnel Boring Machines
- Dust suppression in Hard Rock tunneling
- Protection of the screw conveyor
- Reduction of abrasive wear for cutting tools

Consumption

Typically the RAF-100 is made into a 2–3% (typical range 1.5–4%) solution in water. UGC-NCH (see Separate data sheets) can be added with the UGC-N2 to strength the foam or adjust the properties of the excavated soil.

Features and benefits

- Reduction of abrasive wear for cutting tools.
 - Extending the life of the cutter head
 - Better cooling of the cutterhead
- RAF-100 has been especially developed for soil conditioning in tunneling with shielded TBM excavation. Generally the product when mixed With the soil provides for:
- Reduced permeability and increased sealing at the face
 - Creation of plastic deformation properties in the soil, which provides an even and controlled support pressure and increased face stability
 - Lower inner friction and lower abrasiveness of the soil at the cutter head through to the screw
 - Conveyor and conveyor. This reduces power consumption; enables soil extraction and conveyance, as well as reducing wear costs.
 - Reduces stickiness in certain soils, which would lead to problems with blockage
 - In hard rock tunneling and mining it can be used for dust suppression

Packaging

RAF-100 is available in standard 1000 liter drum.

Storage

The storage temperature of RAF-100 is between 5°C and 40°C. If stored in original tightly closed containers RAF-100 will have as shelf life of 12 months.

Do not allow the product to freeze. It is recommended that your local representative be consulted prior to the use of any product that has become frozen.

Safety precautions

RAF-100 contain no hazardous substances requiring labeling. However, standard precautions for handling chemical products should be observed: Avoid eye and skin contact and wear rubber gloves and goggles.

If contact occurs, rinse with plenty of water. In case of eye contact seek medical advice. For further information, refer to the material safety datasheet.

Typical values	
Form	Liquid
Color	Colorless to beige
Solubility in water	Total
Density@25°C	1.03 ± 0.03 [g/cm ³]
Ph	7.0 ± 1.5