

PRODUCT DATA SHEET

Sika® Foam TBM-101 FB

FOAMING AGENT FOR TBM - EPBM TUNNELING

DESCRIPTION

Sika® Foam TBM-101 FB is a liquid foaming agent based on biodegradable anionic surfactants and a high efficiency polymer.

USES

Sika® Foam TBM-101 FB has been specifically formulated to produce stable foam which can be easily injected in soils from low permeability to high permeability during tunnelling operations with earth pressure balance machines (EPBM).

CHARACTERISTICS / ADVANTAGES

- Produces stable foam which can easily injected in High to low permeability soils reducing the risk of front shield pressure loss.
- It can be used both in acid and basic soils.
- The high efficiency polymer allows keeping the shield clean from clays.
- Its lubricating capacity minimizes friction between soil particles and reduces the head torque.
- Easy to handle.
- Fresh and hard water can be used.
- Eliminates dust in air drilling and reduces the wear of cutters also in rock excavation (adopt a FER 10 – 20 and a FIR 15 – 30).
- Prevents clay from plugging.

PRODUCT INFORMATION

Chemical Base	Biodegradable anionic surfactants and high efficiency polymer.
Packaging	200 kg plastic drums.
Appearance / Colour	Clear homogeneous liquid.
Shelf Life	12 months from date of dispatch if stored in unopened and undamaged original sealed containers.
Storage Conditions	Protect from moisture and against direct sunlight.
Bulk Density	1.030 kg / l +/- 0.03
Solubility	Completely soluble in water.
pH-Value	7 ± 1

TECHNICAL INFORMATION

Specific Advice	Foam Expansion Ratio (FER) From 10:1 to 50:1 depending on soil moisture content.
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SYSTEM INFORMATION

Compatibility

Sika® Admixtures:

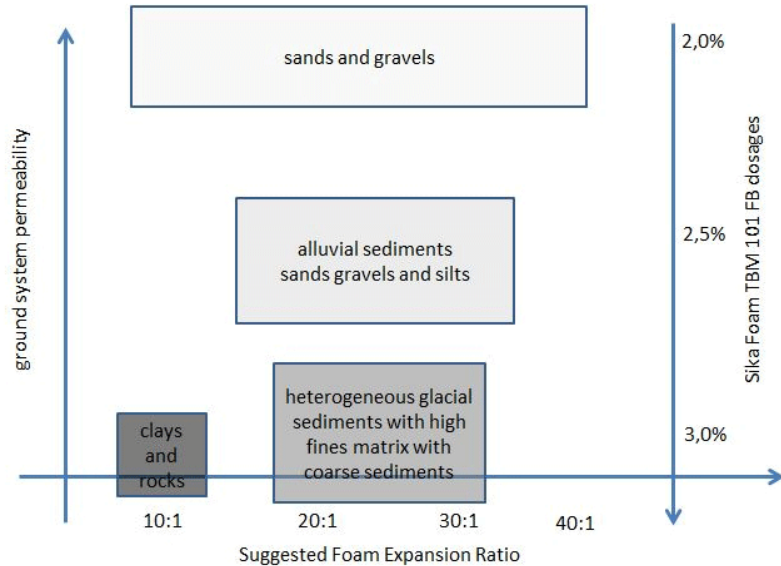
- Compatible with all Sika® TBM tunnelling stabilizing polymers e.g. Sika® Foam TBM 900 Bio and Sika® Foam TBM 1000 Bio.
- Other product compatibility information available on request.

APPLICATION INFORMATION

Recommended Dosage

1.5 – 3.0 % of Sika® Foam TBM-101 FB.

Following graph gives general indications on the suggested foam expansion ratio (FER) with air, as from our experience.



We suggest anyway to run trials for a proper definition of Foam Expansion Ratio (FER) and Foam Injection Ratio (FIR).

Support by Sika technical service is recommended.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

(MSDS) containing physical, ecological, toxicological and other safety-related data.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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