

PRODUCT DATA SHEET

Sika® Stabilizer-1111 TBM

POLYMER-MODIFIED FOAMING AGENT FOR HETEROGENEOUS GROUNDS IN TBM.

DESCRIPTION

Sika® Stabilizer-1111 TBM is a foaming agent used for soil conditioning in soft ground conditions and sandy soils with high water inflows, which cause wear on the TBM's metal parts. The Product improves the rheology of the excavated soil and the face stability. It facilitates the extraction from outside the excavation chamber. Sika® Stabilizer-1111 TBM is an eco-friendly foaming agent, based on biodegradable raw materials.

USES

Sika® Stabilizer-1111 TBM is used for:

- Sandy abrasive soils with a high amount of water in any kind of environment.

CHARACTERISTICS / ADVANTAGES

- Reduces wear on metal parts of the TBM when mining in abrasive sandy soils
- Improves face excavation support pressure and control
- Remains stable and homogeneous when the temperature drops
- Facilitates muck extraction from tunnel and from the muck pit area
- Reduces tunnel excavation time
- Reduces TBM maintenance costs
- Reduces risk of surface settlement
- Improves soil behavior
- Reduces soil permeability very quickly
- Creates plastic deformation properties in the soil, which increases face stability
- Reduces inner friction and abrasiveness of the soil at the cutterhead and shield

PRODUCT INFORMATION

Chemical base	Surfactant
Packaging	1000 L. Bulk delivery. Refer to the current price list for available packaging variations.
Appearance / Colour	Liquid, transparent
Shelf life	12 months from date of production
Storage conditions	The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +40 °C. Always refer to the packaging. Do not allow the Product to freeze. Refer to the current Safety Data Sheet for information on safe handling and storage.
Density	(1.040 ± 0.025) kg/L (EN ISO 2811-1)

APPLICATION INFORMATION

Recommended Dosage	The Product is used as an aqueous solution with a typical concentration of 1–3 %, depending on soil abrasivity index (CAI Index) and groundwater pressure. Contact Sika Technical Services for additional information.
Consumption	1–3 %

SYSTEM INFORMATION

Compatibility	Compatible with Sika® admixtures and other Sika® products. Contact Sika Technical Services for additional information.
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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.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

APPLICATION

1. Conduct preliminary trials in the laboratory to determine foam injection parameters, such as Concentration (Cf), FER and FIR.
2. The Product is used with the standard foam generators installed in all EPB machines. Inject it at the front of the cutterhead, into the excavation chamber or into the screw conveyor.
3. Analyse the TBM data regularly to monitor Product performance.

LOCAL RESTRICTIONS

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

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 can always refer to the most recent version of the local Product Data Sheet for the relevant product, available on our website. The information in any downloaded version is valid as of the time of download.

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Product Data Sheet

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