

## PRODUCT DATA SHEET

# Sika® Stabilizer-1515 TBM

High-performance, polymer-modified foaming agent for difficult cohesive ground in TBM applications

## DESCRIPTION

Sika® Stabilizer-1515 TBM is a high-performance foaming agent based on biodegradable raw materials. It is designed for clay soils with medium to high plasticity index with clogging issue. The special selected anti-clogging polymer effectively reduces the clogging and adhesion in TBMs.

## USES

Sika® Stabilizer-1515 TBM is used to create a highly stable foam to hold the face pressure and maintain the rheology of the excavated ground longer than conventional foaming agents.

Sika® Stabilizer-1515 TBM is used for:

- Sticky clay soils prone to clogging and adhesion issues. Particularly effective at low temperatures.

## CHARACTERISTICS / ADVANTAGES

- Reduces clogging and adhesion to metal parts of the TBM during excavation
- Reduces stickiness of soils with high fines contents (< 0.063 mm), which would cause clogging and blockage
- Ability to work with high FER values avoiding the collapse of the foam, compared to standard foaming agents
- Reduces FIR (Foam Injection Ratio) values to obtain the desired soil rheology, compared to standard foaming agents
- Improves face excavation support pressure and control
- Reduces tunnel excavation time
- Facilitates muck extraction from tunnel and from the muck pit area
- Improves overall tunnel performance
- Reduces TBM maintenance costs
- Reduces risk of surface settlement
- No separation and high foam stability at low temperatures
- 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

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|---------------------|--|
| Chemical Base       | Surfactant   |
| Packaging           | 1000 L (IBC)   |
| 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. Refer to the current Safety Data Sheet for information on safe handling and storage. |
| Appearance / Colour | Liquid, transparent  |

## SYSTEM INFORMATION

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| <b>Compatibility</b> | Compatible with Sika® admixtures and other Sika® products.<br>Contact Sika Technical Services for additional information. |
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## APPLICATION INFORMATION

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| <b>Recommended Dosage</b> | The Product is used as aqueous solution with a typical 1–3 % concentration, depending on the Plasticity Index (PI) and level of stickiness of the clayey soil.<br>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

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing 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 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.

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## 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.