

PRODUCT DATA SHEET

Sika® Stabilizer-2221 TBM TH

TBM tail seal sealant (formerly Sika® Stabilizer TBM TS-2 AP)

DESCRIPTION

Sika® Stabilizer-2221 TBM PH is a tail seal sealant used during excavation with TBMs including high temperature environments. It has been developed for tunnel boring machines (TBM) using backfilling grout for filling the gap between the machine and the precast segments lining.

USES

- Provides a seal between the inside of the shield and the surrounding ground conditions.
- Sealing of the tail seal brushes preventing grout, water, foam, soil ingress and washout effects.
- Designed for use in urban areas where soil and ground water could come in contact with the TBM excavation.

CHARACTERISTICS / ADVANTAGES

- Good adhesion to concrete and steel in wet and dry conditions.
- Ensures sealing between the inside of the shield and the outside environment preventing ingress of water, soil and grout.
- Good anti-washout properties and watertightness.
- Extends the life time of the wire brushes in the tail seals.
- Does not react with the segmental seals.
- Withstands high water pressure.
- Good pumpability at temperatures between +15 °C and +40 °C.
- Lower consumption compared to other types of tail seal greases.
- Easy to handle.
- Used only non-synthetic raw material.
- Sika® Stabilizer-2221 TBM PH is self-extinguishing.

PRODUCT INFORMATION

Chemical Base	Organic compound.
Packaging	25, 70 and 250 kg drums
Appearance / Colour	Homogenous paste, light grey
Shelf Life	12 months from date of production
Storage Conditions	The product must be stored in original, unopened and undamaged packaging in dry conditions and protected from direct sun exposure at temperatures between +5 °C and +35 °C.
Density	1.40 kg/l ± 0.10
Solubility	Not soluble.
Consistency	230 ± 20 (+20 °C) (ASTM D217)

TECHNICAL INFORMATION

Specific Advice	Wash Out: < 2 %	(ASTM D971)
	Water Spray off: < 5 %	(ASTM D4049)
	Water Sealing: 35 bar (no leakage)	(Matsumura)
	Flash Point: > +200 °C	(ASTM D92)

SYSTEM INFORMATION

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

Recommended Dosage	Standard consumption is 0.5–1.5 kg/m ² of the external surfaces of the concrete precast rings and segments. Consumption can change depending on the site conditions due to the precast segment surface roughness, brush condition, segments alignment, etc. Contact Sika Technical Services for additional information.
Restrictions	Product application temperature must be $\geq +15$ °C and $\leq +40$ °C. Cold drums must be stored in warm rooms at least 24 hours before using.

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

DISPENSING

Sika® Stabilizer-2221 TBM PH is pumped through the grease lines between the rows of brushes in the gap between the tail skin and the lining segments using the equipment already installed in the machine.

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.

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