

## PANTARHIT® SOIL-FLUID 100

Art.-Nr. 0851/E

**Admixture for producing cement/bentonite suspensions and for conditioning soils in TBM applications**

### FIELDS OF APPLICATION

PANTARHIT® SOIL-FLUID 100 is a multi-purpose admixture for the construction industry: It is suitable for producing cement/ bentonite suspensions but also for conditioning soils in TBM construction applications.

#### ▪ Cement/ bentonite suspensions

PANTARHIT® SOIL-FLUID 100 combines the required demands of conditioning cement/bentonite suspensions in one product: it retards the setting time, plasticizes the mix and stabilises it.

#### ▪ TBM applications

PANTARHIT® SOIL-FLUID 100 is also suitable for conditioning clayey soils with high clogging and adhesion. The product reduces cutterhead torque and tool abrasion.

PANTARHIT® SOIL-FLUID 100 is able to provide effective ground treatment. This significantly improves the machine performance and enhances control of the soil flow through the screw conveyor.

PANTARHIT® SOIL-FLUID 100 is therefore able to contribute to better advance rates.

### DOSAGE

#### ▪ In cement/ bentonite suspensions

Recommended dosage range 0.2 – 2.7 mass-% of the cement content.

The necessary quantity might vary and needs to be determined in preliminary test for each individual application.

#### ▪ In TBM applications

Due to the different compositions of soils, the necessary dosage quantity varies and needs to be determined in field trials.

For further assistance, please contact your local Ha-Be application department.

### WORKING PRINCIPLE

PANTARHIT® SOIL-FLUID 100 is a high-quality liquid additive providing the following effects:

#### ▪ In cement/ bentonite suspensions

PANTARHIT® SOIL-FLUID 100 provides sufficient and entire wetting of bentonite and cement particles even at low energy intakes. The admixture has slight retarding effects which prolongs the workability time and facilitates the pumpability.

#### ▪ In TBM applications

PANTARHIT® SOIL-FLUID 100 generates a plastic soil which can be easily excavated and transported.

### TECHNICAL DATA

Homogeneity	homogenous
Colour	amber
State	liquid
Density	1.13 ± 0.02 g/cm <sup>3</sup>
pH-value	7.0 ± 1.0
Chloride content	< 0.10 mass.-%
Alkali content (Na <sub>2</sub> O equivalent)	< 4.0 mass.-%
Workability	from +1 °C
Shelf life	approx. 1 year from date of production if stored properly
Storage conditions	Store under cover, out of direct sunlight and protect from extremes of temperature.



Ha-Be Tunnel Team

## PROCESSING INDICATIONS

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▪ **In cement/ bentonite suspensions**

PANTARHIT® SOIL-FLUID 100 should be added to the ready-mixed suspension.

The mixing time in mixers with a high mixing intensity should be at least 30 seconds.

▪ **In TBM applications**

PANTARHIT® SOIL-FLUID 100 can be added in the bentonite suspension for the cutter head or separately into the soil through the cutter head injection.

## PACKAGING

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- 30 l can
- 200 l barrel
- 1000 l container
- loose by bulk supply

## HEALTH & SAFETY

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This product is not classified as hazardous according to the current regulations. Refer to the corresponding Material Safety Data Sheet for further advice.

## REMARKS

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This information describes the application- and processing possibilities of a product and its operation principles under regular conditions. Having no influence on the further application and processing, especially in conjunction with other construction materials, the given indications are neither a warranty in respect of the product's properties or its fitness for a particular purpose nor a full instruction of use. This information, any other recommendation or verbal advice are not binding and do not infer to any liability or legal demand.

Due to continuous further development, the most recent Technical Data Sheet is valid and will be supplied on request. All orders are accepted subject to our current general terms and conditions.

The management system of Ha-Be Egypt has been certified according to ISO 9001:2015.



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**SUITABILITY- AND PRE-TESTS ARE NECESSARY BEFORE APPLYING THE ADDITIVE!**