

# PANTARHIT<sup>®</sup> RSM 333 Admixture for conditioning annular grout mixes used in TBM tunnelling

Item No 0655/E

## **FIELDS OF APPLICATION**

PANTARHIT<sup>®</sup> RSM 333 is a high performance admixture especially designed for conditioning annular grout mixes injected behind the segmental concrete lining of TBM constructions.

PANTARHIT<sup>®</sup> RSM 333 combines the required demands of conditioning annual grout in one product: it retards the setting time, plasticizes the mix and stabilises it.

The conditioning admixture provides the following benefits:

- Allows purposeful extension of workability time
- Long workability maintenance
- Provides low viscosity
- Generates good pumping abilities
- Stabilises the grout
- Reduces bleeding
- Extends storability in pumping lines and grout agitator tanks on the TBM
- Minimizes risks of choking pipelines and grout cars

The application of PANTARHIT<sup>®</sup> RSM 333 enables increasing the compressive, tensile and flexural strength of annular grout mixes

The special formulation of PANTARHIT<sup>®</sup> RSM 333 allows the application of the product as conditioning admixture in one or two component grouting systems.

## DOSAGE

Due to the different compositions of annular grout mixes, 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<sup>®</sup> RSM 333 disperses annular grout mixes while retarding the initial and final setting. Therefore the admixture is able to allow reductions in the water content or to improve the workability without the addition of extra water.

PANTARHIT<sup>®</sup> RSM 333 delays the hydration process and extends the workability time of annular grout mixes purposefully.

## **TECHNICAL DATA**

Homogeneity	homogenous
Colour	amber
State	liquid
Density	1.07 ± 0.02 g/cm <sup>3</sup>
pH-value	3 ± 1
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.





#### **PROCESSING INDICATIONS**

PANTARHIT<sup>®</sup> RSM 333 should be added to the ready-mixed grout.

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

An over dosage will result in increased retardation of initial and final set or an increase in workability.

## PACKAGING

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

#### **HEALTH & SAFETY**

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

#### REMARKS

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 indication 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.

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

