

Non-alkaline set-accelerating admixture for sprayed concrete

### AREA OF USE

Cementol Tiksokret T-BA2 is a liquid non-alkaline set-accelerating admixture that greatly accelerates setting and cement hardening, making it suitable for the dry-mix or wet-mix sprayed concrete, as well as quick setting concrete/mortar.

Use:

- In tunnel construction for the production of sprayed concrete,
- In mines for the stabilization of mining pits,
- For fortification of hills/slope and banks,
- To protect against the collapse of excavations.

It does not contain chlorides and therefore does not cause corrosion of the steel reinforcement.

Because it does not contain alkali metal ions, sprayed concretes prepared with Cementol Tiksokret T-BA2 have a longer lifespan, a minimal drop in concrete strength, and no risk of an alkali-aggregate reaction.

### TECHNICAL CHARACTERISTICS

Characteristic	Declared value
Appearance	Clear to cloudy whitish liquid
Density, 20 °C	[1.37 ± 0.03] kg/L
pH	3.0 ± 1.0
Water-soluble chloride content [Cl <sup>-</sup> ]	Chloride free
Alkali content [Na <sub>2</sub> O equivalent]	< 1.0 %

### COMPLIANCE

**Cementol Tiksokret T-BA2** - a non-alkaline set-accelerating admixture for sprayed concrete, complies with the requirements of the standards EN 934-1 and EN 934-5 / T2.

### ACTION

The addition of accelerator to cement immediately binds water and significantly thickens the cement paste. The hydration of cement minerals is greatly accelerated, resulting in cement and thus concrete being bound in a matter of minutes.

### DOSAGE AND INSTRUCTIONS FOR USE

The recommended dose is 5 – 7 % of cement weight (5 – 7 kg per 100 kg of cement). Depending on the desired effects, 3 – 10 % per weight of cement can be dosed.

The amount of the admixture depends on a variety of factors, including the type, quantity, and age of the cement used, the water-cement ratio, the temperature of the concrete, the environment and substrate to which it is applied, and the surface inclination.

Because the water-cement ratio has a direct impact on the setting time, compressive strength, and durability of the concrete, it should be as low as possible (max. 0.50), which is accomplished by using highly efficient PCE-based water reducing (hyperplasticizing) admixture from the Cementol Hiperplast family.

When designing a base concrete mixture, we respect the requirements and principles of the EN 206 standard: Concrete - specification, performance, production and conformity, as well as the relevant national provisions.

The set accelerating admixture for the sprayed concrete is added to the fresh concrete mixture at the spraying robot's nozzle. We must ensure a uniform inflow of the admixture when dosing because this is the only way to achieve quality sprayed concrete execution.

The exact dosage of Cementol Tiksoekret T-BA2 should be determined based on preliminary tests conducted in the expected weather conditions and with the materials and equipment that will be used on the construction site. The quality of sprayed concrete is also greatly influenced by the application technique.

We follow the requirements and principles of the standards EN 14487-1: Sprayed concrete – definitions, specifications and conformity and EN 14487-2: Sprayed concrete – Execution.

Cementol Tiksoekret T-BA2 is compatible with many admixtures, such as: plasticizers from the Cementol Delta family, superplasticizers from the Cementol Zeta family, hyperplasticizers from the Cementol Hiperplast family, set-retarding admixtures from the Cementol Retard family, and air-entraining admixtures from the Cementol Eta family.

Stir before use.

## **PACKAGING**

drums 60 kg, IBC containers 1 m<sup>3</sup>

## **STORAGE**

- The product should be stored at temperatures between +5 °C and +35 °C. We need to protect it from damage, freezing and direct sunlight.
- A properly stored product has a shelf life of at least 3 months after the date of manufacture.
- The product may still be used after the date of expiry, but the characteristics important for the intended use have to be examined.

## **HEALTH, SAFETY AND ECOLOGY**

When working with Cementol Tiksoekret T-BA2, wear protective gloves, eye and face protection. Follow the general instructions for working with chemicals: take care of cleanliness, do not eat, drink or smoke while working. After finishing work, wash hands thoroughly with water.

More information on safe handling and disposal of the product is available in the safety data sheet, which is provided on request, and is also available from the dealer or distributor where you purchased the product.

## **WARNING**

Instructions and recommendations are given based on examinations in our laboratories and experience to date. Due to specific conditions and work methods, preliminary tests are advised for every type of use, for each individual case of use of the product alone, or in combination with other admixtures.

We recommend special attention and consultation with the technical service when using Cementol Tiksokret T-BA2 in self-compacting SCC concretes and/or in combination with air-entraining admixtures.

Since we cannot influence the course of work, we cannot be held responsible for its quality!



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