



CEMENTOL®

ANTIKONTRAKT T

Shrinkage-reducing admixture

FIELD OF APPLICATION

Cementol Antikontrakt T is a liquid admixture intended for reducing concrete and mortar shrinkage caused by drying. It is used in the preparation of precast concrete elements and reduced-shrinkage concrete and mortar for:

- pavements: possibility of fabricating larger surfaces with less sealing joints,
- thin-bed overlaying: reduced difference in the shrinkage of the coating and base layer,
- watertight concretes for water tanks, pools, dams, purifying plants etc.
- various repair works,
- etc.

BASIC PROPERTIES

Property	Values
Appearance	Colourless liquid
Density	(0,95 ± 0,01) kg/dm ³
pH (10 % water solution)	ca. 7
Water soluble chloride content (Cl ⁻)	Chloride free

ACTION

The cement paste shrinks while drying. The shrinkage is caused by moisture loss due to surface tension of water. **Cementol Antikontrakt T** acts in a way to reduce the surface tension of water in the pores. This results in reduced shrinkage of cement paste and consequently of the concrete / mortar, helping to diminish the danger of concrete / mortar cracking.

ADVANTAGES

- Reduced shrinkage caused by drying (see Important notice).
- Reduced possibility of cracking caused by drying-induced shrinkage.
- Improved watertightness and consequently improved concrete durability.

DOSAGE AND INSTRUCTIONS FOR USE

- Dosage on cement weight: 1 to 3 %, normally 1 to 2 % (1 to 2 kg per 100 kg of cement), depending on cement type, concrete / mortar composition and required effects. In most cases, the recommended dosage for optimal effects amounts to 2 %.
- **Cementol Antikontrakt T** improves concrete / mortar workability, therefore the amount of mixing water can be reduced by the amount of **Cementol Antikontrakt T** added to the mixture.
- **Cementol Antikontrakt T** can be added together with mixing water. When other admixtures are to be used, optimal effects can be achieved by adding **Cementol Antikontrakt T** to the concrete mixture after the other admixtures had already been added and thoroughly mixed.
- If **Cementol Antikontrakt T** is added into the concrete mixer on the building site, concrete should be mixed thoroughly for another 3 - 5 minutes at maximum speed to ensure an even distribution of **Cementol Antikontrakt T** throughout the mixture.

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IMPORTANT NOTICE

- With the use of **Cementol Antikontrakt T**, concrete and mortar shrinkage can be reduced by up to approximately 50 % after 28 days and up to approximately 40 % after 90 days.
- The shrinkage reduction grade depends on concrete components and concrete mixture composition, therefore preliminary tests with materials and concrete composition to be used, as well as in the expected conditions, are highly recommended in order to establish the actual shrinkage reduction grade.
- Fresh concrete curing: to get the best shrinkage reduction results, fresh concrete has to be well protected from water evaporation. A long period of wet curing (min. 7 days) or protection with the **Kontrasol 22** curing agent is recommended.
- Influence on setting time: **Cementol Antikontrakt T** may prolong the setting time at lower temperatures.
- Compatibility with other TKK admixtures: **Cementol Antikontrakt T** is compatible with other admixtures, which however have to be added separately.
- Particular attention should be paid to aerated concrete. The dosage of **Cementol Eta S / Eta S1 / SPA** air-entraining admixtures has to be carefully established to achieve suitable concrete porosity and concrete / mortar resistance to the action of frost and de-icing salts. To establish the suitable dosage necessary for the optimal / required effects, preliminary tests with materials to be used in the concrete example are obligatory.
- **Cementol Antikontrakt T** may reduce the strength of the material by up to 15 %, depending on the admixture dosage and concrete composition.

PACKING

- 50 kg plastic cans, 950 kg containers

STORAGE

- Store the product in a well-ventilated space at temperatures between -10°C and +25°C, away from sources of ignition and heat. Protect from damage, freezing and direct sunlight.
- In tightly closed and undamaged packaging, the shelf life of the product is min. 1 year from the production date.
- The product may still be used after the date of expiry, but the characteristics important for the intended use have to be examined.

SAFETY PRECAUTIONS

When working with **Cementol Antikontrakt T**, skin and eye contact as well as vapour inhalation have to be avoided and general instructions for working with chemicals should be observed:

- Eating, drinking or smoking during work is prohibited.
- After finishing work, hands should be thoroughly washed with water.

NOTE

Cementol Antikontrakt T is a new product. Instructions and recommendations are based on the previously acquired knowledge of the firm and on laboratory research. The admixture was suitably stored and tested at normal conditions. Due to specific concrete and mortar compositions, special requirements for different uses and specific conditions and work methods, preliminary tests are advised for every type of use of **Cementol Antikontrakt T** alone or combined with other admixtures. Since we cannot influence the course of work, we cannot be held responsible for its quality.