

# TKK

## CEMENTOL EXPERT

### ANTIKONTRAKT T

Shrinkage-reducing admixture

#### AREA OF USE

Cementol Antikontrakt T is a liquid admixture designed to reduce shrinkage caused by drying in concrete and mortar (Shrinkage Reducing Agent = SRA).

It is used in the production of precast concrete elements and concretes/mortars for:

- Industrial floorings (concreting of larger fields – smaller number of joints),
- Thin-layer overlays (minor difference in shrinkage of fresh coating and old substrate),
- For the construction of facilities that must be watertight (reservoirs, swimming pools, wastewater treatment plants, white tubs),
- For the execution of visible, architectural concretes without cracks,
- Miscellaneous refurbishment work and the like.

It does not contain chlorides.

#### TECHNICAL CHARACTERISTICS

Characteristic	Declared value
Appearance	Colorless clear liquid
Density, 20 °C	[0.95 ± 0.01] kg/L

#### ACTION

When the cement paste dries, it shrinks due to water evaporation - due to surface tension, water meniscus forms in the capillaries, creating tensions on the capillary walls that young concrete cannot withstand and thus bursts. Cementol Antikontrakt T reduces water surface tension, resulting in smaller meniscus in capillaries and smaller forces on capillary walls, lowering the risk of cracking.

By using Cementol Antikontrakt T we can reduce concrete drying shrinkage for:

- Approximately 50% after 28 days
- Approximately 40% after 90 days

#### DOSAGE AND INSTRUCTIONS FOR USE

The recommended dose is 1 – 3 % of cement weight [1 – 3 kg per 100 kg of cement].

Depending on the type and quantity of cement, the amount of water, and the aggregate composition, a dose of 2% is usually sufficient.

Preliminary tests with materials that will actually be used in concrete production are used to determine the optimal dosage.

Cementol Antikontrakt T improves the workability of concrete/mortar, allowing the designed amount of water to be reduced by the amount of added admixture.

It is dosed diluted with mixing water.

If we use other admixtures in addition to Cementol Antikontrakt T, we get the best results by first adding other admixtures to the fresh concrete mixture and thoroughly mixing them, and then adding Cementol Antikontrakt T.

Before using a higher number of admixtures in a concrete mixture, we advise prior examinations. In this case, they must be added to the concrete mixture separately (one after the other).

When adding Cementol Antikontrakt T to the concrete mixer on the construction site, the concrete must be mixed for at least 3 – 5 minutes at the highest setting to ensure even distribution throughout the concrete mix.

When designing a 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.

During concreting and curing of fresh concrete we respect the principles of good practice.

## **ADDITIONAL INSTRUCTION**

The degree of shrinkage reduction depends on the components of the concrete and the composition of the concrete mix, so determining the actual reduction for each specific case of use requires preliminary investigations using materials, concrete composition, and conditions specified for the specific case.

To achieve the best results, we must protect fresh concrete from water evaporation. We recommend wet curing for as long as possible (at least 7 days) or protection with Kontrasol 22 V or Kontrasol NOVI curing agents.

At lower temperatures, Cementol Antikontrakt T may affect the prolongation of cement setting time.

Cementol Antikontrakt T can reduce compressive strength by up to 15 %, depending on the dosage, composition of the concrete mixture, and curing procedure.

Cementol Antikontrakt T is compatible with many admixtures, such as: plasticizers from the Cementol Delta family, superplasticizers from the Cementol Zeta family, and hyperplasticizers from the Cementol Hiperplast family. Please contact the TTK Technical Service for all other admixture combinations to avoid selecting incompatible combinations.

Cementol Antikontrakt T is not compatible with the air-entraining admixture Cementol Eta S, but it is compatible with air-entraining agents Cementol Eta S 06 and Cementol Eta MPOR.

In general, due to the mechanism of action of SRA-type admixtures, entrain of air micro bubbles in the concrete mix is very demanding, so it is necessary to prove compatibility with any air-entraining admixture used for each individual use case is required.

Because of its composition, Cementol Antikontrakt T can soften or swell certain rubber seals found in dispensers, pumps, and pipelines over time. May cause cracks in some PMMA [plexiglass]. The use of stainless steel, high density polyethylene-HDPE, PTFE [Teflon] and EPDM rubber is completely safe. Natural rubber seals are unsuitable. If in doubt, dilute Cementol Antikontrakt T with water in a 1 : 1 ratio when the use of all materials is completely safe.

## **PACKAGING**

drums 50 kg, IBC containers 1 m<sup>3</sup>

## **STORAGE**

- The product should be stored at temperatures between -10 °C and +25 °C. Only store in the original, well-sealed packaging in a cool, dry, and well-ventilated place. Keep away from sources of ignition and heat, as well as direct sunlight.
- A properly stored product has a shelf life of at least 2 years 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 Antikontrakt T, 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.

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



TKK d. o. o. · Srpenica 1, 5224 Srpenica, Slovenija  
+386 (0) 5 38 41 300 | info@tkk-group.com | www.tkk-group.com