

Set-retarding admixture

## AREA OF USE

Cementol Retard R2 is used wherever we want to achieve slower setting or hardening of concrete. It is especially appropriate for making ready-mix concretes, and for concreting at high temperatures and/or in hot climates, to prevent excessively fast setting caused by high temperatures.

It is also appropriate for preventing so-called cold joints and for concreting in cases where fresh concrete needs to be revived.

It does not contain chlorides.

## TECHNICAL CHARACTERISTICS

Characteristic	Declared value
Appearance	Colorless to milky-white liquid
Density, 20 °C	(1.16 ± 0.03) kg/L
pH	8.5 ± 1
Water-soluble chloride content [Cl <sup>-</sup> ]	Chloride free
Alkali content [Na <sub>2</sub> O equivalent]	< 8.0 %

## COMPLIANCE

**Cementol Retard R2** - setting retarding admixture complies with the requirements of the standards EN 934-1 and EN 934-2 / T8.

## ACTION

A concrete set retarder delays the formation of cement hydration products – development of crystal nuclei inside the cement paste. Thus prolonging the setting time of cement.

Table: Effect on cement mortar setting time according to EN 480-2

Cement mortar: EN 480-1

Cement: CEM I 42.5 R

Setting time [20 °C]	Reference mix	Test mix with the addition of Cementol Retard R2, 0.8 %	Retardation of setting time [min]
Initial [min]	180	528	348
Final [min]	240	573	333

## **DOSAGE AND INSTRUCTIONS FOR USE**

The recommended dose is 0.2 - 1.5 % of cement weight (0.2 - 1.5 kg per 100 kg of cement) depending on the w/c ratio, temperature of the environment, required retarding time, cement dosage and its type and especially of its mineral compositions.

For accurate dosage, it is necessary to carry out preliminary examinations on the effect of retardation on cement setting with the materials that will actually be used under the same temperature conditions.

It is dosed diluted with mixing water in order to prevent a local reaction and enables a better distribution throughout the mixture. If it is dosed manually, dilute it with water in a volume ratio of not less than 1 : 5 [1 L set-retarder + 5 L water].

Cementol Retard R2 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, air-entraining admixtures from the Cementol Eta family.

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

Stir before use.

When designing a concrete mix, 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.

## **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 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.
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## **HEALTH, SAFETY AND ECOLOGY**

No special measures are required when working with Cementol Retard R2. 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!



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