

Hardening accelerating admixture

AREA OF USE

Cementol Gama is an innovative chemical admixture for concrete, hardening accelerator of a new generation, suitable for the production of concrete where high initial compressive strengths are required. It is suitable for all types of high-quality concrete, especially for the production of precast elements.

It does not contain chlorides.

The use of Cementol Gama enables:

- greatly accelerated gain of initial compressive strengths,
- improvement of concrete workability with unchanged mixing water content,
- concreting at normal and low temperatures,
- manufacture of precast concrete elements.

TECHNICAL CHARACTERISTICS

Characteristic	Declared value
Appearance	Suspension f white colour
Density, 20 °C	(1.16 ± 0.03) kg/L
pH	11.5 ± 1.0
Water-soluble chloride content [Cl ⁻]	Chloride free
Alkali content [Na ₂ O equivalent]	< 10.0 %

COMPLIANCE

Cementol Gama - hardening accelerating admixture, complies with the requirements of EN 934-1 and EN 934-2 / T7 standards.

ACTION

Cementol Gama is a suspension prepared on the basis of nanoparticles. Unlike traditional hardening accelerators, it works on a different principle - the so-called "grain" technology, which acts as crystallization nuclei and allow accelerated growth of calcium silicate hydrates - thereby accelerating the hydration of cement at an early stage.

Cementol Gama accelerates the hardening of concrete at low and room temperatures, as well as steam curing of precast elements.

The effect of the admixture is greater when using cement with higher hydration heat, in concretes with higher doses of cement and a lower water-cement ratio.

DOSAGE AND INSTRUCTIONS FOR USE

The recommended dose is 0.5 – 4.5 % of cement or binder weight (0.5 – 4.5 kg per 100 kg of cement) depending on the desired effects and working conditions.

The usual dosage is between 2.0% - 3.0%.

It is dosed diluted with mixing water in order to prevent a local reaction and enables a better distribution throughout the concrete mixture.

When concreting in the winter, the recommendations for winter concreting must be followed. During casting, fresh concrete must have a temperature of at least +5 °C. Fresh concrete (free surfaces) must be immediately protected with a suitable insulating material to prevent heat transfer from the concrete to the surroundings during hydration.

Despite the fact that Cementol Gama also plasticizes fresh concrete mix, we recommend it to be used in combination with a superplasticizer/hyperplasticizer from the Cementol Hiperplast product group and thus further reduce the ratio of cement to water.

Cementol Gama is compatible with hyperplasticizers from the Cementol Hiperplast family and air-entraining admixtures from the Cementol Eta family.

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).

Stir before use.

The effectiveness of Cementol Gama depends on the aggregate and cement used, so we recommend preliminary investigations for optimal use.

When preparing SCC (Self-Compacting Concrete) concretes, it is necessary to follow the basic principles for the preparation of SCC concretes.

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.

PACKAGING

drums 50 kg, IBC containers 1 m³

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.
- In case Cementol Gama freezes, it should be thawed at room temperature and mixed well.
- A properly stored product has a shelf life of at least 1 year 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 Gama, wear protective gloves and eye 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 Gama in self-compacting concrete (SCC) 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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