

Air-entraining admixture with superplasticizing effect

AREA OF USE

Cementol SPA is an air-entraining admixture and superplasticizer. It has a dual action in concrete and can be used to prepare:

- Fresh concrete with increased workability,
- Concrete with increased resistance to freezing and thawing cycles,
- Concrete with increased corrosion resistance,
- improved durability of concrete.

Concretes prepared with Cementol SPA are, in their hardened state, resistant to frost and thawing, precipitation and corrosive solutions, particularly de-icing salt, which is used to sprinkling roads in the winter. As a result, it is used in the construction of all concrete structures as well as the manufacture of prefabricated elements that will be subjected to the action of cold and/or salt, such as roads, bridges, dams, airport runways, canals, sidewalks, curbs, roof tiles, as well as for the production of concrete decorative products from cast concrete.

TECHNICAL CHARACTERISTICS

Characteristic	Declared value
Appearance	Dark brown liquid
Density, 20 °C	(1.08 ± 0.02) kg/L
pH	8 ± 1
Water-soluble chloride content [Cl ⁻]	Chloride free
Alkali content [Na ₂ O equivalent]	< 4.0 %

COMPLIANCE

Cementol SPA - air-entraining admixture, complies with the requirements of the EN 934-1 and EN 934-2 / T5 standards.

ACTION

Cementol SPA entrains stable air microbubbles into the fresh concrete, which allow the release of internal stresses in the hardened concrete caused by the increase in volume when water freezes in the capillaries, while also interrupting the capillary system, acting as a barrier that reduces the penetration of water and corrosive solutions from the concrete's surface into the interior. This improves the watertightness of the concrete.

Simultaneously, it plasticizes a fresh concrete mixture, allowing for a reduction in the water-cement ratio and thus compensating for the drop in concrete strength caused by the entrained air.

DOSAGE AND INSTRUCTIONS FOR USE

The recommended dose is 1 – 2 % per weight of cement [1 – 2 kg per 100 kg of cement], depending on quantity of entrained air micro-bubbles and the desired water reduction.

The percentage of air voids that corresponds to almost all requirements ranges between 4 and 6 % vol., depending on the purpose of use of the concrete. Content of air voids is influenced by a number of factors; therefore, preliminary tests with the materials and equipment to be used are required to determine the optimal dosage of air-entraining admixture for each concrete mixture.

Cementol SPA is added to the concrete mixture diluted with mixing water, or, better yet, concentrated on the freshly prepared concrete mixture. In this case, the concrete should be mixed for 4-5 minutes.

Cementol SPA is compatible with numerous admixtures, such as: hardening accelerating admixture Cementol B NOVI, plasticizers from the Cementol Delta family, superplasticizers from the Cementol Zeta family, and set retarding admixtures from the Cementol Retard family.

Cementol SPA is incompatible with PCE-based superplasticizers/hyperplasticizers of the Cementol Hiperplast family and with SRA-type admixtures such as Cementol Antikontrakt T.

Before using a higher number of admixtures in a concrete mixture, we advise preliminary tests. In this case, they must be added to the concrete mixture separately [one after the other].

If it is used in conjunction with other admixtures, they must be added separately to the concrete mix [one after the other].

Stir before use.

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.
- 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

No special measures are required when working with Cementol SPA. 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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