

Superplasticizing admixture

AREA OF USE

Cementol Zeta-conc. is a superplasticizing admixture intended to improve the overall quality of concrete. The strength of basic concrete is increased by simultaneously decreasing the water-cement ratio and adding a superplasticizer. The amount of mixing water is reduced by 30%, depending on the type and dose of cement, water-cement ratio, and the amount of superplasticizer used.

Casting, workability, and pumpability of the concrete are improved by keeping the water-cement ratio constant when the superplasticizer is added.

TECHNICAL CHARACTERISTICS

Characteristic	Declared value
Appearance	Dark brown liquid
Density, 20 °C	(1.18 ± 0.03) kg/L
pH	9 ± 1
Water-soluble chloride content [Cl ⁻]	Chloride free
Alkali content [Na ₂ O equivalent]	< 8.0 %

COMPLIANCE

Cementol Zeta-conc. – superplasticizer, complies with the requirements of EN 934-1 and EN 934-2 / T3.1 and T3.2

ACTION

By adsorbing the superplasticizer to the cement particles, they acquire the same charge, improving wetting and lowering internal friction. This improves the workability of the cement paste and, as a result, the fresh concrete. The increased density of hardened cement paste improves the impermeability to water and durability of the concrete. The adhesion of concrete to steel reinforcement is also improved.

DOSAGE AND INSTRUCTIONS FOR USE

The recommended dose is 0.5 – 1.5 % by weight of cement (0.5 – 1.5 kg per 100 kg of cement), depending on the w/c ratio, the desired consistency of fresh concrete, and concrete and ambient temperature.

The superplasticizer is added to the diluted concrete mixture 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.

If we are unable to install concrete before it loses its required consistency, it can be increased by adding a superplasticizer without fear of affecting the quality of the concrete. If appropriate preliminary testing has not been performed, care should be taken to ensure that the total amount of superplasticizer does not exceed the recommended dose of 1.5 %.

If a superplasticizer is added subsequently on site, dilute it with water in a 1: 2 ratio and add it directly to the transport vehicle's mixer, mixing at full speed for at least 1 minute for each 1 m³ of concrete or at least 5 minutes.

Cementol Zeta-conc. is compatible with a wide range of admixtures, including hardening accelerating admixture Cementol B NOVI, air-entraining admixtures from the Cementol Eta family, plasticizers from the Cementol Delta family, and set-retarding admixtures from the Cementol Retard family.

Cementol Zeta P-conc. is **incompatible** with PCE-based superplasticizers/hyperplasticizers from the Cementol Hiperplast 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.

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 60 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

When working with Cementol Zeta-conc., wear protective gloves. 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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