

BETOCRETE®-C35

CRYSTALLINE WATERPROOFING CONCRETE ADMIXTURE

Product Description:

BETOCRETE®-C35 is a crystalline technology concrete admixture used to produce permanently active waterproof concrete in:

- Water retaining structures; potable water tanks, sewage treatment plants, and septic tanks.
- Water excluding structures; retaining walls, tunnels, elevator pits, and dams.
- Below grade structures; piles foundations, basements.
- Mass concrete.

Advantages:

- Permanently active; will self-heal future static cracks up to 400 microns.
- Improved final strength.
- Provides additional protection to reinforcement steel by reducing chloride ion diffusion.
- Can be used in a high w/c ratio (up to 0.55) concretes.
- Withstands high water pressures (up to 14 bars).
- Compatible with most types of concrete admixtures.
- Eliminates the need for surface waterproofing.

Technical Properties:

Colour	: grey.
Form	: powder.
Bulk density	: 1.04 g/cm ³ .
Processing temp	: +8°C to +30°C
Application temp	: from +5°C

Dosage Range:

The dosage amount depends on the concrete/mortar mix design and the reactivity of the cement. Trial applications must be conducted to find the suitable amount. The recommended dosage rate is 0.8 – 1.5% by weight of CEM.

Instructions for Use:

Dosage in mortars:

Add BETOCRETE®-C35 to the aggregate and approx. 40% of the mix water. Mix at least 2 minutes before adding the remaining water and cement.

Dosage in ready-mix factory:

Add BETOCRETE®-C35 to the aggregate and mix at least 30 s before adding water and cement. Continue mixing for at least 45 s until the concrete mix has reached its working properties.

Dosage in a batch truck:

The addition of BETOCRETE®-C35 on the job site (batch truck) does not happen in powder form but as a suspension in water. Mix the required amount of BETOCRETE®-C35 with water in a suitable vessel and add this slurry completely into the mixing drum. The mixing ratio is approx. 1:1, add approx. 5 l water to a 5 kg bag BETOCRETE®-C35. The required mixing time can be estimated as 1 minute per m³ drum contents, but min. 5 minutes. Make sure that the additional slurry water does not increase the water/cement ratio above the projected value. Otherwise, the water amount must be reduced from the mixing water dosage at the batch plant. The working time after addition of



BETOCRETE®-C35 depends on the reactivity of the used cement and can either be prolonged or shortened. The addition of a concrete retarder like RUXLITH-T5 (VZ) or REMITARD-20 (BV) may be required when using Portland Cement Type I, II or III. Suitability tests accord. to valid standards and norms have to be carried out prior to application.

Estimating & Supply:

25 kg bags.

Cleaning & Equipment Maintenance:

Regular water flushing of dispensing equipment will prolong service life and reduce breakdowns. Use REINIT-BM on internal metal surfaces subject to contact with concrete in concrete mixers, batch plants and truck mixers regularly to prevent concrete crust formations. Use REINIT-R to remove hardened concrete crusts.

Storage & Shelf-life:

BETOCRETE®-C35 has a shelf-life of 12 months when stored dry at +20° C in original, unopened bags

Special Advice:

- Concrete modified with BETOCRETE®-C35 may tend to effloresce depending on the composition.
- Aggregates must have a continuous sieve line.
- It is recommended to perform compatibility tests with other admixtures as required.
- Concrete, modified with BETOCRETE®-C35 must be produced, placed and finished in accordance with valid norms.
- BETOCRETE®-C35 is non-corrosive and has no adverse effects on the reinforcement.
- Protect surrounding areas against the influence of BETOCRETE®-C35.

- It is rarely possible that BETOCRETE-C35 influences the setting of the concrete. Our products RUXOLITH-T5 (VZ) and REMITARD-20 (BV) have proven to be effective retarders.
- Never apply BETOCRETE®-C35 powder into mixed (wet) concrete or mortar mixes as this will increase the risk of lump formation. A homogeneous dispersion of BETOCRETE®-C35 cannot be expected under these conditions.

Health & Safety:

Please adhere to the valid European Materials Safety Data Sheet (MSDS)!