

BETOCRETE®-CP-350-CI

CRYSTALLINE CONCRETE ADDITIVE WITH CORROSION INHIBITORS

Product Description:

BETOCRETE®-CP-350-CI is a powder-based admixture for designing a watertight concrete with innovative 2-in-1 technology. Nano-crystals are formed in the capillaries by special catalysts, which become active in contact with water forming a sustainable and permanently water-impermeable concrete. In addition, reinforcing steel is protected against corrosion.

- Powder based.
- Innovative 2 in 1 technology.
- Crystallization of the capillaries.
- Crack healing is possible for penetrating cracks up to 0.4 mm and for map/pattern cracks up to 0.5 mm.
- Corrosion inhibitor.
- Improvement of the resistance to freeze/thaw.
- Reduction in chloride migration.
- Protects reinforcement from corrosion.
- Minimization of maintenance and repair costs.
- Time-savingng.

Areas of Application:

BETOCRETE®-CP-350-CI can be applied to all concrete where water penetration should be permanently prevented. They are for example:

Cooling towers at power stations, tanks and containers, retaining basins, swimming pools, parking garages, parking lot levels, foundations,

sandwich units, waterproof concrete, sewer channels/ manhole access points, tunnels, Concrete pipes and everywhere, where water tightness is needed.

Technical Properties:

Color	: Grey
Consistency	: Powder
Bulk density	: 1.12 g/cm ³
Application temp.	: ≥ ±5°C
Storage	: Dry, 12 months in the original unopened container. Use opened containers promptly.
Packaging	: 3 kg water-soluble paper-bag 20 kg foil bag.
Concrete requirements	: CEM I 270 kg/m ³ CEM II 290 kg/m ³ CEM III/A 350 kg/m ³

This applies to all exposure classes expect for XA3 in accordance with DIN EN 206-1/ DIN 1045-2. BETOCRETE®-CL210-WP shows the highest efficacy in exposure class XS.

Outside of EN-norms:

OPC-cements	: ≥270 kg/m ³
OPC with ≤35% mixed GGBS, fly ash or pozzolan	: ≥290 kg/m ³
OPC with ≤50% Mixed in GGBS	: ≥350 kg/m ³

Product Preparation:

Dosage:

The required dosage rate is 0.75-1.25% based on CEM weight and is dependent, amongst other criteria, on the concrete formula and the reactivity of the cement. The dosage is to identify with the suitability trail. The following dosage levels have stood the test of time:

w/c value	<0.4	0.75% based on CEM
	>0.4-0.5	0.80% based on CEM
	>0.5-0.55	0.95% based on CEM

Do not exceed the maximum dosage level of 1.25% based on CEM weight.

Dosage at Concrete Plants:

BETOCRETE®-CP-350-CI is to be dosed into the aggregate and mixed for a minimum of 30 seconds before adding the water and cement. Subsequently, mix for a minimum of 45 seconds until ready to use.

Dosage in Concrete Trucks:

BETOCRETE®-CP-350-CI is dosed directly into the mixing drum of the concrete truck on the building site. The mixing time should be 1 min/m³ of drum contents but be a minimum of 5 minutes.

Advice:

- Dependent on the composition, concrete modified with BETOCRETE®-CP-350-CI can feature crystals on the surface of the concrete.
- Carry out preliminary trials in accordance with current standards before using BETOCRETE®-CP-350-CI or other types of additives- when using 3 kg water-soluble paper bags, be aware that the water demand might increase.
- Lignite fly ash is only suitable with restrictions.
- The use of CEM III /B&C cements is excluded.
- Concrete with BETOCRETE®-CP-350-CI must be produced, installed and cured following current valid standards.

- The prescribed crack width restrictions given by the Planner/ Engineer/ Structural Engineer must be respected in all circumstances. Differing interpretations are to be proven with relevant design verification and design suitability.
- In rare circumstances BETOCRETE®-CP-350-CI may influence the initial set of concrete. As a system-compatible product, RUXOLITH-T5 (VZ) is available to control the concrete.

Please observe a current valid safety data sheet.