



Technical Data Sheet

BETOCRETE®-CP-380-S

Art.-No. 2 06454

Crystalline concrete additive with strong plasticizing effect

BETOCRETE-CP-380 -S is powder-based admixture for designing a water tight concrete with innovative 2 in 1 technology.

Initially it acts chemically and plasticizes the concrete. In the next step, nano-scale crystals are formed in the capillary system by special active catalysts, which become active on contact with water. This forms a concrete which is sustainable and permanently impermeable to water.

- Powder based
- Innovative 2 in 1 technology
- Crystallization of the capillaries
- Water reducing up to 20%
- Crack healing possible for penetrating cracks up to 0.4 mm and for map/pattern cracks up to 0.5 mm
- Suitable for warm climatic conditions
- Improvement of the resistance to freeze/thaw
- Reduction in Chloride migration
- Minimization of maintenance and repair costs
- Time saving

Areas of application:

BETOCRETE- CP-380 -S can be applied to all concrete where water penetration should be permanently prevented.

These 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 watertightness is needed.

Technical data:

Colour: grey
Consistency: Powder
Bulk density: 0.76 g/cm³

Application temp.: +5 °C
Storage: dry, 12 months in the original unopened container. Use opened containers promptly.
Packaging: 16 kg foil bag
Water pollution class: 1 (Self classification)

Concrete requirements:

Minimum cement content: CEM I 270 kg/m³
CEM II 290 kg/m³
CEM III /A 380 kg/m³
Pozzolanic cement with pozzolan content >20%: 300 kg/m³
Granulated slag: max. 100 kg/m³
Fly ash: max. 80 kg/m³

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 a suitability trial. 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 0.90% based on CEM

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

Dosage at concrete plants:

BETOCRETE-CP-380-S 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 for use.

Dosage in concrete trucks:

The addition of BETOCRETE-CP-380-S on site (concrete truck) is not carried out as a powder but as a very aqueous suspension. The required amount of BETOCRETE-CP-380-S is premixed with water at a ratio

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of 1:1 (5 kg BETOCRETE-CP-380-S and 5 kg water) using a suitable vessel and stirrer and then completely emptied into the mixing drum of the truck. The secondary mix time should be 1 min/m³ of drum contents but at least 5 minutes. Ensure that additional water from the prepared suspension does not increase the required w/c value specified. Otherwise the water in the concrete recipe must be considered during production and prior to the addition of the suspension.

Advice:

- Dependent on composition, concrete modified with BETOCRETE- CP-380-S can feature crystals on the surface of the concrete.
- Carry out preliminary trials in accordance with current standards before using BETOCRETE- CP-380-S or other types of additives.
- Lignite fly ash is only suitable with restrictions.
- The use of CEM III/B&C cements is excluded.
- 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.
- Concrete with BETOCRETE- CP-380-S must be produced, installed and cured following current valid standards.
- In rare circumstances BETOCRETE- CP-380-S may influence the initial set of the concrete. As a system compatible product, RUXOLITH-T5 (VZ) is available to control the concrete.

Please observe a current valid EU safety data sheet!