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#### **Technical Data Sheet**

## **BETOCRETE®-CP-360-WP**

Art.-No. 2 06446

### Crystalline waterproofing admixture with hydrophobic effects



#### SCHOMBURG GmbH & Co. KG Aquafinstrasse 2 – 8 D-32760 Detmold

2 06446

# EN 934-2 BETO CRETE-CP-360-WP Waterproofing additive for concrete EN 934-2:T9

Chloride content max. 0.10 M.%
Alkali content max. 21.0 M.%
Corrosion behaviour contains components only from EN 934-1:2008, Annex A.1

Compressive strength fulfilled
Capillary water absorption fulfilled
Air content fulfilled
Dangerous substances NPD







BETOCRETE-CP360 -WP is powder-based admixture for designing a water tight concrete with innovative 2 in 1 technology. Initially it functions chemically and reduces the water absorption in the matrix. 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
- Reduces capillary absorption
- Crack healing possible for penetrating cracks up to 0.4 mm and for map/pattern cracks up to 0.5 mm
- Reduction in Chloride migration
- Improvement of the resistance to freeze/thaw
- Minimization of maintenance and repair costs
- Time saving

#### **Areas of application:**

BETOCRETE-CP-360 -WP 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:  $0.80 \text{ g/cm}^3$ Application temp.:  $\geq +5 \text{ °C}$ 

Storage: dry, 12 months in the

original unopened container at +20 °C. Use opened containers promptly

Packaging: 3 kg water-soluble paper-bag

20 kg foil bag

Water pollution class: 1 (Self classification)

#### Concrete requirements:

Minimum cement content: CEM I 270 kg/m<sup>3</sup>

CEM II 290 kg/m³ CEM III /A 380 kg/m³ CEM III /B 400 kg/m³

#### Outside of EN-norms:

OPC-cements: ≥270 kg/m³

OPC with ≤35% mixed in GGBS,

fly ash or puzzolan: ≥290 kg/m³

OPC with ≤65%

mixed in GGBS:  $\geq$  380 kg/m<sup>3</sup>

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## BETOGRETE®-GP-360-WP

#### **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.

For cement content with  $>400 \text{ kg/m}^3$ , a maximum dosage of  $3.5 \text{ kg/m}^3$  is sufficient.

#### Dosage at concrete plants:

BETOCRETE-CP-360-WP 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:

BETOCRETE-CP-360-WP is dosed directly into the mixing drum of the concrete truck on the building site. The mixing time should be 1 min/ $m^3$  of drum contents but be a minimum of 5 minutes.

#### **Advice:**

- Dependent on composition, concrete modified with BETOCRETE-CP-360-WP can feature crystals on the surface of the concrete.
- Carry out preliminary trials in accordance with current standards before using BETOCRETE-CP-360-WP 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/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-360-WP must be produced, installed and cured following current valid standards.
- In rare circumstances BETOCRETE-CP-360-WP 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 safety data sheet!

The rights of the buyer with regard to the quality of our materials are based on our terms and conditions of sale and delivery. Our technical advice team will be happy to advise you in the case of requirements that exceed the scope of the application described here. In order to be binding, a legally binding written confirmation is required. The product description does not release the user from a duty of care. Lay a test area in the event of uncertainty. This version becomes invalid in the event of a new version being issued.

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