



## Technical Data Sheet

# BETOCRETE®-C16

## Crystalline waterproofing concrete admixture

Art.-No. 4 06149

BETOCRETE-C16 is an inorganic liquid additive for the crystalline waterproofing of concrete construction components. In comparison to other powder additives, BETOCRETE-C16 has no tendency to form lumps. During the concrete's hardening process, BETOCRETE-C16 forms fine crystal fibres within the capillaries. The crystal fibres reduce the diameter of the concrete pores and therefore eliminate water being transported into the concrete matrix. Treated concrete is permanently watertight.

- liquid therefore easier and safer to mix – no risk of lumping
- reduces water penetration
- resists extremely high hydrostatic pressure from the positive (active) or negative side
- retrospective crack sealing up to 0.4 mm is possible
- becomes an integral part of the concrete
- the concrete remains vapour permeable
- max. water cement factor: 0.55
- no impairment of the drying properties or hardening process. Increases of around 8% in compressive strength have been observed after 28 days
- permanently active

### Area of application:

BETOCRETE-C16 is particularly suitable for water impervious concrete in construction e.g. tunnels, foundations, pre-cast segments, parking garages, Reservoirs, water and sewerage treatment plants, swimming pools, subterranean channels etc.

### Technical data:

|                     |   |
|---------------------|---|
| Colour:             | clear – colourless  |
| Delivery form:      | liquid  |
| Density (at +20°C): | 1.15 g/cm <sup>3</sup>  |
| pH value:           | 11.5  |
| Application temp.:  | +8°C – +30°C  |
| Storage:            | dry and frost free, min.<br>12 months in the original<br>unopened packaging, use<br>opened packaging promptly |

|                              |   |
|------------------------------|---|
| Packaging                    | 1,100 - kg - container<br>250 - kg - drum<br>25 - kg - drum |
| Water pollution class (WGK): | 1 (Self assessment)   |

### Dosage:

2 % by weight CEM, minimum however 7 kg/m<sup>3</sup> concrete

The required dosage depends on the concrete design and the reactivity of the cement. It is to be determined within the scope of a performance test.

### Dosage in a concrete plant:

BETOCRETE-C16 can be added to the gauging water or the finished concrete mix.

### Dosage in a concrete truck:

Add BETOCRETE-C16 completely to the mixing drum and then mix well for 1 minute per m<sup>3</sup> of drum contents but for at least 5 minutes, and use quickly.

### Product preparation:

The w/c ratio of the concrete mix should not exceed 0.55 including the concrete additive. The working life after the addition of BETOCRETE-C16 is approx. 45 minutes dependent on the reactivity of the cement. When using Portland cement Type II or Type III, the addition of a retarder may be necessary. Relevant trials should be carried out.

If the product has been stored below +8 °C, crystals may form. After warming to a minimum of +15°C, stirring or homogenising, BETOCRETE-C16 can once again be used.

### Advice:

- Concretes modified with BETOCRETE-C16 can, dependent on the composition, have a tendency to effloresce.

---

# BETOCRETE®-C16

- Before using BETOCRETE-C16, carry out appropriate trials.
- Aggregate particles must be composed of a steadily increasing particle size distribution.
- It is recommended when using other concrete additives that appropriate trials are carried out.
- Concrete with BETOCRETE-C16 must be produced, applied and treated to current valid standards.
- BETOCRETE-C16 does not contain any materials, which will cause corrosion.
- In rare cases, BETOCRETE-C16 may influence the setting process of the concrete. System compatible products are available to control the concrete e.g. REMITARD-20 (plasticizer) and RUXOLITH-T5 (retarder).

Please use a valid EU safety data sheet!

**GISCODE: BZM 1**