



## Technical Data Sheet

# BETOCRETE®-D100

Art.-No. 4 06656

## Water-reducing (plasticizer) & retarding concrete admixture

### Product Description:

BETOCRETE-D100 is a liquid plasticizer and retarding concrete admixture formulated to improve workability of concrete mixes. Once incorporated in the mix, BETOCRETE-D100 is adsorbed on the cement particles' surface inducing a powerful deflocculating property, effectively reducing the concrete mixing water demand and improving physical and mechanical while maintaining its workability.

BETOCRETE-D100 is based on a blend of modified Lignosulphonates and organic modifiers & retarders designed with the main purpose of reducing workability loss.

### Primary Uses:

BETOCRETE-D100 is formulated to be used as retarding and plasticizing chemical concrete admixture to produce high quality concrete in hot climates:

- Ready mixed concrete enabling longer transportation of the concrete.
- Prestressed concrete where high quality concrete is required.
- All concrete works such as: bridges, basement, etc. where extending workability and setting time is required.
- Tropical Climate concreting.

### Advantages:

- Reduces mixing water while maintaining workability.
- Improves workability and pumping properties.
- Increases setting times enabling long transportation of concrete in the hot climates.
- Improves all physical & mechanical properties of the concrete.
- Improves surface finishes.
- Eliminates any risk of segregation, bleeding and creep.
- Provides high dense concrete improving the water-proofing properties
- Water-based, non-flammable, non-toxic, chloride-free and does not contain any harmful ingredients.
- Formulated to be suitable for the Middle East conditions.

### Standards:

BETOCRETE-D100 is formulated to comply with all the requirements of both ASTM C-494 Type D and EN 934 Part 2.

### Technical Properties:

Appearance:	Dark brown liquid
Specific Gravity:	1.17 ± 0.005 at 23° C
Air-entrainment:	< 0.5 % additional air will be entrained
Chloride content:	Nil
Setting Times:	Both initial and final setting times will be delayed. This will be influenced by mix design, dosage and ambient temperatures.
Permeability:	Waterproofing properties will be improved. Resistance to water & water soluble salts will also be improved.
Water reduction:	10 - 15 % of mixing water can be reduced.
Compatibility:	Compatible with all types of Portland cements including SRC. It is compatible also with SCHOMBURG range of admixtures. Each shall be added separately.
Cohesion:	Cohesion of the matrix will be increased.
Mechanical Properties:	All mechanical properties (such as compressive strength) will be improved.

### Dosage range:

Dosage will be influenced with the mix design, cement content & type, quality of used materials, ambient temperatures and the specific requirements, so, site trials should be carried out to determine the optimum dosage.

Dosage: typically 0.30 – 0.80 % by the weight of cement (total cementitious content).

(0.25 - 0.68 Litre for each 100 kg of cement)

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# BETOCRETE®-D100

## **Dispensing:**

The accurate quantity should be measured by means of a suitable dispenser. BETOCRETE-D100 should be added with the last third of mixing water or immediately after complete mixing water addition.

## **Overdosing:**

An overdosing of BETOCRETE-D100 may result – depending on dosage – in an increase of workability, more air-entrainment and retarding setting times. In this case, the concrete shall be protected from evaporation of mixing water.

## **Curing:**

Concrete should be cured in accordance to applicable European Norms or ACI recommendations. Alternatively use any of the SCHOMBURG curing agents range; REMICURE.

## **Cleaning:**

Dispensers, hoses, equipment and tools can be easily cleaned with water.

## **Packaging:**

BETOCRETE-D100 is supplied in 20 liters, 210 liters, and 1000 liters upon request.

## **Storage & Shelf-life:**

BETOCRETE-A100 has a shelf-life of 12 months when original, unopened containers are stored in a dry and frost-free environment above 5° C. Protect product from any extreme temperatures or direct sunlight.

## **Health and Safety:**

- BETOCRETE-D100 is water-based, non-flammable, non-toxic, and does not contain any harmful ingredients.
- Any contamination of skin can be removed with normal water.
- For disposal follow the local regulations.
- For any details for safety requirements, please refer to Product's MSDS