



Technical Data Sheet

BETOCRETE®-D300

Retarding water-reducing concrete admixture with workability retention

Art.-No. 4 06657

Product Description:

BETOCRETE-D300 is a liquid, plasticizer & retarding concrete admixture formulated to improve workability of concrete mixes. Once incorporated in the mix, BETOCRETE-D300 is adsorbed on the cement particles surface inducing a powerful deflocculating property, effectively reducing the concrete mixing water demand and improving physical and mechanical properties of the resultant concrete.

BETOCRETE-D300 is based on a blend of modified Lignosulphonate and organic modifiers & retarders designed with the main purpose of reducing workability loss in tropical climates.

Primary Uses:

BETOCRETE-D300 is formulated to be used as retarding and plasticizing chemical concrete admixture to produce high quality in hot climates:

- Ready mixed concrete enabling longer transportation of the concrete.
- Prestressed concrete where high quality, low porosity & waterproofing concretes are required.
- All concrete works such as: bridges, basement, etc. where extending workability and setting time are required.
- Large volume of concrete that is used in slip forming to prevent cold joint formation.

Advantages:

- Reduces mixing water while maintaining workability.
- Improves workability and pumping properties.
- Increases the setting times enabling long transportation of concrete in the hot & tropical climates.
- Improves all the physical & mechanical properties of the concrete.
- Improves surface finishes.
- Eliminates any risk of segregation, bleeding and creep.
- Provides high dense concrete improving the waterproofing properties and protecting the concrete reinforcement from water-borne soluble salts.
- 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-D300 is formulated to comply with all requirements of both ASTM C-494 Type D and EN 934 Part 2: Tables 1, 10

Technical Properties:

| | |
|------------------------|--|
| Appearance: | Dark brown liquid |
| Specific Gravity: | 1.18 ± 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 be improved. |
| Water reduction: | 15 % of mixing water can be reduced. Durability will be improved. |
| 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 accurate dosage.

Approximately, the dosage is 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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Dispensing:

The accurate quantity should be measured by means of a suitable dispenser. BETOCRETE-D300 should be added with the last third of mixing water or immediately after complete mixing water addition. Do not add directly to the dry mix or cement. For proper administration an automatic dispenser shall be used.

Overdosing:

An overdosing of BETOCRETE-D300 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-D300 is supplied in 20 liters, 210 liters and 1000 liters upon request.

Storage & Shelf-life:

BETOCRETE-D300 has a shelf-life of 12 months when original, unopened containers are stored in a dry and frost-free environment above 5° C.

Health and Safety:

- BETOCRETE-D300 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.