



Technical Data Sheet

BETOCRETE®-G 1000

Art.-No. 4 06659

Retarding, high-range, water-reducing superplasticizing concrete admixture

Product Description:

BETOCRETE-G1000 is a retarding, high-range, water-reducing, superplasticizing concrete admixture. BETOCRETE-G1000 is formulated to produce high quality concrete in hot climates with excellent flowing properties whilst increasing retardation and extending transportation times. Once incorporated in the mix, BETOCRETE-G1000 is adsorbed on the cement particles surface inducing a powerful deflocculating property, effectively reducing mixing water demand and improving both physical and mechanical properties of the resultant concrete. BETOCRETE-G1000 is based on a selection of synthetic polymers.

Primary Uses:

BETOCRETE-G1000 is typically used in hot climates to produce:

- Precast concrete
- Ready mix concrete
- Slabs, basements and foundations
- Walls, columns and piers
- Bridges and related structures
- Easy to finish concrete slabs
- Mass concrete
- Slip-form concrete

Advantages:

- Reduces effectively the mixing water.
- Improves workability, placing and pumping properties.
- Reduces compaction time.
- Enable long transportation times.
- Can be used to save cement.
- Improves physical and mechanical properties.
- Improves surface finishes.
- Improved cohesion minimizes risks of segregation, bleeding and creep.
- Provides high dense concrete which improves the waterproofing properties protection of reinforcement steel against detrimental water-borne ion attack.
- Water-based, non-flammable, non-toxic, chloride-free and non-corrosive.
- Formulated to be suitable for the Middle East conditions.

Standards:

BETOCRETE-G1000 complies with all the requirements of ASTM C- 494, Type G as well as with all requirements of EN 943 Part 2 tables: 1, 11.1 and 11.2

Technical Properties:

Appearance:	Dark brown liquid
Specific Gravity:	1.20 ± 0.005 @ 20°C
Air-entrainment:	Less than 1 % additional air is entrained.
Water-reduction:	25% of mixing water can be reduced.
Setting times:	Initial and final setting time are extended, compared to the control and based on dosage, cement type, mix design, ambient temperature and RH.
Permeability:	Reduces concrete porosity, improves waterproofing and durability.
Compressive strength:	Increased early and ultimate compressive strengths.
Cohesion:	Improved cohesion reduces risk of segregation
Compatibility:	Compatible with all types of Portland cement including Sulfate Resisting Cement (SRC). Compatible with other SCHOMBURG admixtures when dispensed separately

Dosage range:

Dosage is influenced by cement type, mix design, quality of used materials, ambient temperatures and other specific requirements, so site trials should be carried out for determination of suitable dosage.

Dosage: typically 0.50 – 2.0% by the weight of total cementitious content.

(0.42 - 1.67 Litre for each 100 kg of cement)

BETOCRETE®-G1000

Dispensing:

BETOCRETE-G1000 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 overdose of BETOCRETE-G1000 may result - depending on dosage - in an increase of workability and extension of setting time. Overdosed concrete must be protected against direct sun light & water evaporation.

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. Spills must be contained and removed to industrial waste in accordance with local environmental laws. Please always consult local legislative authorities.

Packaging:

BETOCRETE-G1000 is supplied in 20, 210 and 1000 liters.

Storage & Shelf-life:

BETOCRETE-G1000 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-G1000 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.