



Technical Data Sheet

BETOCRETE®-G2000

Art.-No. 4 06653

Retarding, high-range, water-reducing superplasticizing concrete admixture with improved workability retention

Product Description:

BETOCRETE-G2000 is a retarding, high-range, water-reducing, superplasticizing concrete admixture with workability retention. BETOCRETE-G2000 is formulated to produce high quality concrete in hot climates with excellent flowing properties to improve early & ultimate strengths whilst increasing retardation and extending transportation times. Once incorporated in the mix, BETOCRETE-G2000 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-G2000 is based on a selection of synthetic polymers.

Primary Uses:

BETOCRETE-G2000 is typically used in hot climates to produce:

- precast concrete
- ready mix concrete
- demanding infrastructures: bridges, piers, jetties, taxiways, water and sewage treatment tanks
- easy to finish concrete slabs
- mass concrete
- slip-form concrete

Advantages:

- Reduces mixing water while maintaining same workability.
- Improved workability, placing & pumping properties.
- Reduced compaction time.
- Enables long transportation times.
- Can be used to save cement.
- Improved physical & mechanical properties.
- Improved surface finish.
- Improved cohesion minimizes risks of segregation, bleeding and creep.
- Denser concrete improves waterproofing properties and protection of reinforcement steel against detrimental water-borne ion attack.
- Water-based, non-flammable, non-toxic.
- Chloride-free; suitable for pre-stressing.
- Specially formulated for hot weather concreting.

Standards:

BETOCRETE-G2000 is formulated to comply with all the requirements of

- ASTM C-494 Type G
- EN 934 Part 2 Tables: 1, 11.1 and 11.2

Technical Properties:

Appearance:	Dark brown liquid
Specific Gravity:	1.20 ± 0.005 @ 20°C
Chloride content:	Nil
Additional	
air-entrainment:	0.5 %
Water reduction:	25 % of mixing water can be reduced. Durability will be improved.
Setting times:	Initial and final setting times are extended. compared to the control and based on dosage, rate, ambient temperatures 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 to determine optimum dosage.

Dosage: typically 0.50% to 2.50% by the weight of total cementitious content (cement + replacers if used).
(0.42 - 2.10 Litre for each 100 kg of cement)

BETOCRETE®-G2000

Dispensing:

BETOCRETE-G2000 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-G2000 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.

Estimating & supply:

Packaging:

BETOCRETE-G2000 is supplied in 20, 210 and 1000 litres upon request.

Consumption:

0.5% to 2.5% by weight of cement depending on requirements. Site trials are always necessary to determine the optimum dosage.

The use of dispensing equipment is important to reduce errors and wastage, typically associated with manual dispensing.

Storage & Shelf-life:

BETOCRETE-G2000 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-G2000 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.