



BETONAC[®] BVF

HIGH RANGE WATER REDUCING SUPER PLASTICIZER CONCRETE ADMIXTURE

DESCRIPTION

BETONAC[®] BVF is a super plasticizer for use as a concrete admixture in all types of construction work. It is based on modified Naphthalene Sulfonate. When added to concrete mixes it acts as a powerful dispersing agent for the cement particles, which would otherwise tend to agglomerate.

The use of BETONAC[®] BVF depends on the project requirements and the type of cement, sand and aggregate used in the project.

USES

BETONAC[®] BVF is ideal for use in:

- Concrete footings.
- Concrete paving.
- Floorings and plain concrete.
- Slabs, beams and columns elements.
- Works that request a high retardation to control the initial setting time.
- Producing of high strength and pumpable concrete.

ADVANTAGES

- Speed construction - increased workability speeds handling, filling of formwork and placing around congested reinforcement. Labor times reduced to minimum.
- Increased strengths - without increasing the cement content or reduction in workability.
- Improved quality - reduces shrinkage by lowering w/c ratios. Denser, closer textured concrete for improved durability and surface finish. Bleeding and segregation are minimized.
- Easier pumping - lower pumping pressures prevent clogging and reduce friction in the pipeline.

STANDARDS

BETONAC[®] complies with ASTM C 494, Type F. And when it is used in hot seasons, it complies with ASTM C 494, Type G.

(ASTM C 494 requirements: Type F: high range water reducing, Type G: high range water reducing and retarding admixture).

DOSAGE

BETONAC[®] BVF is normally added at the rate from 850 ml to 2000 ml (we recommend 1000ml) for each 100kg of cement, depending on the retardation or workability required.

Longer setting times or higher temperatures require higher addition rates. Conversely, the addition rate will be lower for shorter retardation. Trial mixes are recommended.

Overdosing results in more retardation and higher workability.



ADDITION

The correct quantity should be carefully measured. BETONAC® BVF should be added at the final mixing step with 40% of the mixing water.

Important Note: If the concrete pouring process is delayed for any reason for a period longer than expected, An additional quantity of BETONAC® BVF should be added to the truck mixer in order to re-plasticize the mixture without effecting the compressive strength and to avoid the concrete initial setting into the mixer.

PHYSICAL PERFORMANCE

Workability

The addition of BETONAC® BVF without reduction in the water content and with only minor mix re-design, produces “collapsed slump concrete” which will flow to fill formwork completely and produce denser hardened concrete without decrease in compressive strengths.

Bleeding/Segregation

Despite the high liquid consistency of collapsed slump concrete, little bleeding takes place and the likelihood of aggregate segregation is reduced to minimum. It should be noted, however, that the pressure developed by the flowing concrete on the formwork is slightly increased.

Reduced Shrinkage Cracking

Flowing concrete does not have the disadvantages of concrete which has been plasticized by increasing the amount of cement paste or water and the incidence of shrinkage cracking is therefore, reduced. Where water or cement reducing properties of BETONAC® BVF are used, shrinkage cracking is also greatly reduced.

Durability

Increased density and uniformity produced by the workability of the plasticized concrete increases durability and resistance to aggressive agents. Research indicates that the long-term effects of creep are unaffected and where water reducing properties are used, creep is reduced.

TECHNICAL DATA

Appearance: Brown Liquid

Density: 1.13 ± 0.02 gm/ml

Setting time: Initial and final setting time depends on temperature, cement quantity and dosage used.

Packaging: BETONAC® BVF is packed in 20 liter Jerrycans or 1000 liter IBCs

Storage & Shelf life: BETONAC® BVF has a minimum shelf life of 1 year if stored in originally sealed packaging. It should not be exposed to direct sunbeam and protected against frost.

LEGAL NOTES

Whilst information and/or specification contained herein is to the best of our knowledge true and accurate, and is based on many years of experience, we cannot accept any liability either directly or indirectly arising from the use of our products, whether or not in accordance with any advice, specification or recommendation given by us, as we have no direct or continuous control over how or where our products are applied.