



# BETONAC<sup>®</sup> BVS

## HIGH RANGE WATER REDUCING SUPER PLASTICIZER CONCRETE ADMIXTURE

### DESCRIPTION

BETONAC<sup>®</sup> BVS is a light brown ready to use aqueous solution based on organic compounds. It acts as a dispersing agent, breaking down the agglomerates of cement particles and enables water in the mix to perform more efficiently. BETONAC<sup>®</sup> BVS delays the initial hydration of cement.

### USES

BETONAC<sup>®</sup>BVS is designed to:

- Produce high workability concrete.
- Promote high strength by facilitating large reduction of water content while maintaining workability.
- Delay and control the setting time of concrete, So It is used wherever a delay in setting time is required to ensure sufficient delivery, easy placement and vibration or compaction time such as in hot weather concreting, where delayed and controlled setting assures sufficient placement time and improved concrete quality.

### ADVANTAGES

- **Increased slump** - When the water-cement ratio is constant, the initial slump of concrete can be increased by more than 8cm.
- **Improved workability** - speeds placing of concrete and construction works.
- **High water reduction** – gives high strength during 7 days age.
- **Improved cohesion** - reduces bleeding and segregation where poor sand grading is unavoidable.
- **Easy pumping** – due to improved workability and cohesion and extended setting time. BETONAC<sup>®</sup> BVS also provides protection to the concrete pumps and truck mixers.
- **Cement saving** - When the strength and slump are basically the same, the amount of the cement can be reduced by at least 15%

### STANDARDS

BETONAC<sup>®</sup> 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).

### COMPATIBILITY

BETONAC<sup>®</sup> BVS is generally compatible with most types of Portland and slag cement, except with the rapid hardening Portland cement.

### ADDITION

The correct quantity should be carefully measured. BETONAC<sup>®</sup> BVS should be added at the final mixing step with 40% of the mixing water.

**DOSAGE**

BETONAC® BVS is normally added at the rate from 750 ml to 1500 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.

**TECHNICAL DATA**

**Appearance:** Brown Liquid

**Density:** 1.16 ± 0.02 gm/ml

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

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

**Storage & Shelf life:** BETONAC® BVS 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.

**LIMITATIONS**

- If the concrete pouring process is delayed for any reason for a period longer than expected, An additional quantity of BETONAC® BVS 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.
- The standard rules of good concreting practice, concerning production as well as placing, are to be followed. Refer to relevant standards. Fresh concrete must be cured properly.
- When BETONAC® BVS added separately to the freshly mixed concrete, further mixing should take place for at least one minute per cubic meter.
- Do not use BETONAC® BVS with polycarboxylate based admixtures.

**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.