



BETONAC[®] 1055-B

HIGH RANGE WATER REDUCING & SLUMP RETENTION SUPERPLASTICIZER FOR READY MIX CONCRETE

DESCRIPTION

BETONAC[®] 1055-B is a new generation admixture (Polycarboxylate Ether based) superplasticizer used for producing ready mix concrete that extremely reduces water while maintaining workability and average slump retention, it also helps to achieve early compressive strength and hence increasing the life of concrete flowability.

USES

BETONAC[®] 1055-B is designed to produce ready mix concrete structures of heavy fine-grained concrete with different strength grades and different levels of flowability such as:

- Piling applications
- Concrete bridges
- Precast, prestressed and post tension elements
- Water tanks, canals and swimming pools
- Production of free vibration self-compacting concrete (SCC)
- Concrete in hot seasons that requires extended workability

ADVANTAGES

- **Provides excellent water reducing in concrete** – about 50% or more.
- **Reducing the permeability of concrete** – so BETONAC[®]1055-B can gives a dense concrete mixture.
- **Easy Pumping** – due to improved workability and cohesion and extended setting time, BETONAC[®] 1055-B also provides protection against any delays and stoppages.
- **Cement Saving** - reduces the quantity of cement in the concrete mix by 20% while at the same time maintaining the ultimate strength and durability of structures.
- **Increase Compressive Strength**— by 15% (min.).
- **Increases resistance to aggressive atmospheric conditions.**
- **Reduced shrinkage and creep.**
- **Improved resistance to carbonation.**

STANDARDS

BETONAC[®] 1055-B complies with ASTM C 494, Type F. And when it is used in hot seasons, it complies with ASTM C494, Type G

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



APPLICATION

The correct quantity should be carefully measured. Half dosage of BETONAC® 1055-B should be added at the first mixing sequence with 75% of the mixing water then the second half of the dosage should be added at the final sequence with 25% 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® 1055-B 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.

DOSAGE

BETONAC® 1055-B is normally added at the rate from 500 ml to 1250 ml for each 100kg of cement, depending on the retardation or workability required.

Longer setting times may 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. Segregation might occur in some cases, please consult our specialized Lab. Engineer in this case.

TECHNICAL DATA

Appearance: Transparent or Light Brown Liquid

Density: 1.07 ± 0.02 gm/ml

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

Packaging: BETONAC® 1055-B is packed in 20 liter Jerrycans or 1000 liter IBCs

Storage & Shelf life: BETONAC® 1055-B 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

- BETONAC® 1055-B can be successfully used in mix designs utilizing pozzolanic materials such as Fly ash, Silica fume and GGBFS.
- When BETONAC® 1055-B added separately to the freshly mixed concrete, further mixing should take place for at least one minute per cubic meter.
- When BETONAC® 1055-B is used to produce self-compacting concrete, special mix designs are required, please contact our technical support.

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.