



# KingMix<sup>®</sup> 90SP

High range water reducing admixture with workability retention properties.

## DESCRIPTION

KingMix 90SP is formulated from selected polymers specially designed to enable the water content of the concrete to perform more effectively. This effect can be used to improve workability, to increase ultimate strengths or to facilitate a reduction in the cement content while sustaining mix properties.

KingMix 90SP has strong workability retention which helps in long distance and hot weather concrete deliveries, and is particularly suitable for ready-mix concrete.

## APPLICATIONS

- ▣ Long distance and hot weather concrete deliveries.
- ▣ Where high workability retention and retardation are of prime importance.
- ▣ To produce high quality concrete of improved durability and water tightness.

## ADVANTAGES

- ▣ Higher strength with same cement content.
- ▣ Minimising segregation problems by improving cohesion.
- ▣ Excellent slump retention properties.
- ▣ Improved workability reduces placing and compaction problems.
- ▣ Cold joints can be avoided by extending initial and final concrete setting time.
- ▣ Saving cement without affecting strength specifications.
- ▣ More durable concrete by considerable reduction in permeability.

## COMPATIBILITY

KingMix 90SP can be used with all types of Portland cement and cement replacement materials. KingMix 90SP is compatible with other KINGKRETE admixtures used in the same concrete mix. If more than one type of admixture will be used in the concrete mix, they must be dispensed to the concrete separately.

## STANDARDS

KingMix 90SP complies with ASTM C494, Type B, D and G, depending on the dose.

## TECHNICAL PROPERTIES @ 25°C:

Colour:	Brown liquid
Freezing point:	≈ -2°C
Specific gravity:	1.18 ± 0.02
Chloride content: BS5075	Nil
Air entrainment:	Typically less than 2% additional air is entrained above control mix at normal dosages

## METHOD OF USE

KingMix 90SP should be added to the concrete with the mixing water to achieve optimum performance. An automatic dispenser should be used to dispense the correct quantity of KingMix 90SP to the concrete mix.

## DOSAGE

The guidance dosage is between 0.80 - 2.10 litre/100 kg of cementitious materials in the mix, including GGBFS, PFA or microsilica.

## EFFECTS OF OVER DOSAGE

Overdosing of KingMix 90SP will cause the following:

- ▣ Significant increase in retardation.
- ▣ Increase in workability.

Ultimate concrete strength will not be adversely affected and will generally be increased provided that proper concrete curing is maintained.

## SETTING TIME

Although the setting time is dependent on the dosage of KingMix 90SP, the following factors should be considered:

- ▣ Retardation is increased with lower levels of tri-calcium in the cement.
- ▣ Lower temperatures will delay the setting time.
- ▣ SRC cement gives higher retardation level than ordinary cement.
- ▣ Using more than one type of admixture in the same concrete mix could affect the setting time.
- ▣ Retardation level is increased when cement replacement materials are used in the concrete mix.



# KingMix<sup>®</sup> 90SP

## CLEANING

KingMix 90SP can be washed immediately by cold water.

## PACKAGING

KingMix 90SP is available in 25 litre pails, 210 litre drums and 1000 litre bulks supply.

## STORAGE

Shelf life is 1 year when stored under cover, out of direct sunlight and protected from extremes of temperature.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult KingKrete's Technical Services Department.

## HEALTH AND SAFETY

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal containers after use. Use in well ventilated areas and avoid inhalation.

## NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local KingKrete representative.

KingKrete Inc. reserves the right to have the true cause of any difficulty determined by accepted test methods.

## QUALITY AND CARE

All products originating from KingKrete's Qatar facility are manufactured under a management system independently certified to conform to the requirements of the quality standard ISO 9001.

\* Properties listed are based on laboratory-controlled tests.

® = Registered trademark of the KingKrete-Group in many countries.

## KingKrete-Qatar/KingMix\_90SP\_02/v2/07\_18

### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this KingKrete Inc. publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

### NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by KingKrete Inc. either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not KingKrete Inc. are responsible for carrying out procedures appropriate to a specific application.