

KingAdd[®] 50SC

Alkali-free powder accelerator for dry-mix sprayed concrete

DESCRIPTION

KingAdd 50SC is a non-toxic, alkali-free powder accelerator for dry-mix spraying concrete. Varied dosages of KingAdd 50SC will provide the required setting time.

APPLICATIONS

Dry-mix sprayed concrete applications such as:

- ☞ Initial and permanent support of surfaces in underground spaces.
- ☞ Slope and rock stabilization.
- ☞ Repair & renovation works.

ADVANTAGES

- ☞ Alkali-free, chloride-free and non-toxic.
- ☞ No ground water contaminations from alkali leachates.
- ☞ Improves the bond of shotcrete to the rock or concrete.
- ☞ Provides improved overhead spraying.
- ☞ Rapid setting for early strength requirements.

STANDARDS

KingAdd 50SC complies with ASTM C1141/C1141M, Types I, Grade 9, Class B.

COMPATIBILITY

Cement:

KingAdd 50SC is recommended to be used in concrete mixes based on Ordinary Portland Cement (OPC) or Rapid Hardening Portland Cement (RHPC). The minimum cement weight per cubic meter of the concrete mix should be no less than 350 kg/m³.

With the assistance of KINGKRETE Technical Service preliminary testing can be conducted for KingAdd 50SC compatibility with cements available to the job site.

Admixtures:

KingAdd 50SC is compatible with all KINGKRETE admixtures. It is recommended KINGKRETE Technical Department should be contacted for advice.

Do not use other set accelerators in the concrete mix.

TECHNICAL PROPERTIES

Colour:	White powder
Bulk density:	800 – 1000 kg/m ³
pH:	4 ± 1 (1% solution)
Chloride content: BS 5075	< 0.1%

METHOD OF USE

Dosage

Spraying trials should be conducted to determine the optimum dosage of KingAdd 50SC to meet the performance requirements by using the materials and conditions in actual use.

Dosage of KingAdd 50SC will vary depending on the performance requirements of the spraying concrete, cement type, age and content, temperature of the spraying concrete, substrate and air, the water to binder ratio as well as the other admixtures and materials in the concrete mix.

Typical dosage is between 5% - 10% of binder (cement, PFA, GGBFS, microsilica, etc.) content by weight.

EFFECTS OF OVER DOSAGE

Overdosing of KingAdd 50SC will decrease the ultimate concrete strength.

Application

KingAdd 50SC can be added directly to the dry sprayed concrete mix providing that:

- ☞ Moisture content of the mix is less the 6%, and
- ☞ Minimum cement weight per cubic meter of the concrete mix should be no less than 350 kg/m³.

CLEANING

KingAdd 50SC can be washed with fresh cold water.

PACKAGING

KingAdd 50SC is available in 15 kg bags.



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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.

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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.

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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.

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