

# Acrylic bonding and curing agent for cement mixes and concrete repair.

## DESCRIPTION

KingBond A100 is a one component modified acrylic liquid polymer specially formulated for use as a bonding agent and curing aid for cementitious concrete repair systems. KingBond A100 is designed for maximum performance under the alkaline condition of cement mixes. Unlike PVA systems, the bond film will not hydrolyse under wet conditions and can therefore be used externally, internally and in submerged conditions.

#### APPLICATIONS

KingBond A100 is ideally designed for use as a primer and curing aid for KingRep cementitious repair systems and as a bonding aid for bonding fresh to old concrete.

### ADVANTAGES

- One component, easy to use.
- High bond strength provides excellent adhesion when used as a bonding agent for cement based mixes and KingRep cementitious repair systems.
- Duitable for use in hot areas.
- Can be used internally, externally and for submerged conditions.
- Can be used as a curing agent eliminating the need for water curing.

#### STANDARDS

KingBond A100 complies with ASTM C1059–99, Type 1 & 2, when tested in accordance with test method ASTM C1042.

## METHOD OF USE

# **Substrate Preparation**

The substrate should be sound, clean and free from contamination. Surface laitance should be removed by light scabbling or grit blasting. Corroded steel should be fully exposed and cleaned to bright conditions by grit blasting or by wire brush. Exposed steel reinforcements should be protected by applying one full unbroken coat of zinc rich epoxy such as KingRep ZR and allowed to dry. All surfaces should be presoaked with clean water prior to applying KingBond A100.

## TECHNICAL PROPERTIES @ 25<sup>o</sup>C:

Tensile bond strength:	2.5 MPa @ 7 days
Colour:	White emulsion
Film forming time	10 - 20 min @ 40°C
range:	30 - 50 min @ 25°C
_	60 - 120 min @ 15°C
Curing efficiency:	> 55%
Slant shear strength:	
ASTM C1042-99	
Type I (dry)	> 6 MPa
Type II (after immersion)	> 15 MPa
VOC:	< 15 g/ltr

Note: Film forming time range is also affected by relative humidity and wind.

### APPLICATION

### As a priming bonding agent:

KingBond A100 should be brushed vigorously into the presoaked surface making sure to fill all pores and voids. Make sure to apply the repair mortar when the film is formed and is still tacky as mentioned above.

#### As a curing aid:

KingBond A100 can be used as a curing aid over cementitious repair mortars to prevent rapid evaporation of water. In severe hot weather conditions or in windy situation, the use of high efficiency curing agent such as Setseal 44 should be considered.

#### CLEANING

All tools should be cleaned immediately after use with fresh clean water. Hardened materials should be cleaned mechanically.

## PACKAGING

KingBond A100 is available in 5 and 18 litre packs.

#### COVERAGE

Approximately  $5 - 8 \text{ m}^2/\text{litre}$  when used as a primer. Approximately  $4 - 6 \text{ m}^2/\text{litre}$  when used as a curing aid.



#### 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.

#### KingKrete-Qatar/KingBond\_A100\_02/v2/07\_18

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