

# KingHard<sup>®</sup> C500

Dry shake monolithic concrete floor hardener for stamped concrete.

## DESCRIPTION

KingHard C500 is a premixed dry shake floor hardener applied over freshly laid concrete. KingHard C500 is formulated from selected graded aggregate, cement and special additives to provide a non-metallic, non-oxidising, dense and smooth surface with high abrasion and wear resistance.

KingStamp RA100 is a premixed special hydrophobic releasing powder mixed with high quality pigments.

## APPLICATIONS

- ☐ Parking areas.
- ☐ Warehouses.
- ☐ Side-walks.
- ☐ Patios and garden landscaping.

## ADVANTAGES

- ☐ Good resistance to wearing and abrasion.
- ☐ Easy to apply.
- ☐ Provides monolithic floor.
- ☐ Premixed, ready to use.
- ☐ U.V. Stable pigments.
- ☐ Available in wide range of colours.
- ☐ Decorative finish as a finished stamped concrete floor.

## STANDARDS

KingHard C500 complies with EN 13813, Class CT-C35-F5-AR6.

## METHOD OF USE

- ☐ All form work should be erected properly to the correct levels prior to placing the concrete.
- ☐ The right time to spread the KingHard C500 on concrete surface is when light foot traffic leaves an imprint of about 3 - 6 mm.
- ☐ Any bleed water still present should be removed.
- ☐ The concrete surfaces should be floated using a wood or magnesium "Bull-float" prior to the application of the colour hardener "KingHard C500".
- ☐ Spread two third of the required quantity of KingHard C500 onto the concrete surface and allow the material to absorb moisture from concrete. When the slab has an even, solid colour appearance, the surface should be floated using magnesium "Bull-float".

## TECHNICAL PROPERTIES @ 25°C:

Colour:	Comes in different selected colours
Maximum wear depth: BS EN 13892-4	0.6 mm
Flexural strength: BS EN 13892-2	> 5 MPa
Compressive strength: BS EN 13892-2	> 35 MPa

- ☐ The remaining quantity of KingHard C500 is applied evenly onto the surface and shall be floated as above.
- ☐ Using a "Fresno" or blue steel trowel, the surface should be trowelled well to eliminate any float marks and to achieve the final finish.
- ☐ Prior to imprinting, the trowelled slab should be covered with powder release agent "KingStamp RA100" at a rate of 5 to 7 m<sup>2</sup>/kg.
- ☐ The crew should be equipped with a minimum of 6 or more mats and a floppy. Adequate and enough hand tools should be available to complete the whole area.
- ☐ Using a reference line, begin by placing the first mats using this line and move across the slab. When stamping, the mats should be tamped using a special pounder without delay.
- ☐ The finished slab should be left for a minimum of 2 - 3 days to set.
- ☐ All excess powder release agent "KingStamp RA100" should be brushed off and then cleaned using pressurized water.
- ☐ The slab must be completely dry before the sealer coat is applied.
- ☐ The surface must be sealed using KingStamp AC100. The first coat should be applied at a rate of 6 - 10 m<sup>2</sup>/Ltr. A second coat can be applied if required after the first coat has dried.

# KingHard® C500

## CONCRETE LIMITATIONS

The following concrete properties should be achieved to obtain hard concrete surface with high abrasion resistance:

- Ⓜ W/C ratio should be less than 0.5. KingMix water reducing admixtures are highly recommended to achieve such water cement ratio.
- Ⓜ Recommended concrete slump between 75 mm to 120 mm.
- Ⓜ Cement content should be more than 300 kg/m<sup>3</sup>.
- Ⓜ Proper concrete compaction and leveling is a must.
- Ⓜ For concrete subject to freeze-thaw cycles, an air- entraining admixture should be used.
- Ⓜ Polypropylene fibre "PP Fiber" 12 mm length should be added to the concrete mix at the rate of 0.6 kg/m<sup>3</sup> of concrete to minimize shrinkage cracks.

## APPLICATION RATE

Materials should be applied at the following rates:  
KingHard C500: 3 – 5 kg/m<sup>2</sup>, depending on colour.  
KingStamp RA100: 5 – 7 m<sup>2</sup>/kg.

KingStamp AC100: 6 -10 m<sup>2</sup>/litre, depending on concrete porosity.

## PACKAGING

KingHard C500 is available in 25 kg bags.  
KingStamp RA100 is available in 10 kg bags.  
KingStamp AC100 is available in 5 and 25 litre pails.

## CLEANING

Montop and KingStamp RA100: All tools should be cleaned immediately after finishing with fresh water.

KingStamp AC100: Tools and equipment may be cleaned with KINGKRETE Solvent. Dried KingStamp AC100 should be removed mechanically.

## 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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## KingKrete-Qatar/KingFloor\_C500\_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.

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### NOTE

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