

KingCoat® CT500

Heavy duty solvent free coal tar modified epoxy based flooring screed system.

DESCRIPTION

KingCoat CT500 is a heavy duty solvent free coal tar modified epoxy flooring screed system. Components of product composed of a base, hardener, filler and graded aggregate which when mixed form a homogenous screed. KingCoat CT500 cures to a durable, anti-slip, extremely hard wearing surface.

APPLICATIONS

KingCoat CT500 is used to provide a hard wearing anti-skid surface for concrete and steel floors for a wide range of applications such as:

- ☒ Car parks.
- ☒ Roads and bridges.
- ☒ Offshore oil platforms.
- ☒ Ship decks.
- ☒ Industrial floors.
- ☒ Helicopter decks (pad).

ADVANTAGES

- ☒ Hard wearing system.
- ☒ Non-slip.
- ☒ Solvent free.
- ☒ Fast cure.
- ☒ Waterproof.
- ☒ Flexible.
- ☒ Resists a wide range of chemicals, consult KINGKRETE technical department for more details.

STANDARDS

KingCoat CT500 complies with EN 13813, SR-B2.0-AR0.5-IR10.

METHOD OF USE

Substrate Preparation

The substrate must be clean, dry, even, dense and free from oil, grease, dust and other contaminants. A clean surface will ensure maximum adhesion between the substrate and the coating. Concrete floors must have a minimum compressive strength of 25 N/mm².

Concrete relative humidity should be less than 80% for concrete of 28 days old or more, for low W/C ratio concrete floors, 80% hygrometer reading or less can be achieved before 28 days age. Steel substrates should be blast cleaned to a minimum of Sa2½.

TECHNICAL PROPERTIES

Specific gravity:	2 ± 0.1
Working life:	60 - 80 min @ 15oC 40 - 50 min @ 25oC 20 - 30 min @ 35oC
Foot traffic:	After 24 hr @ 25°C
Vehicular traffic:	After 48 hr @ 25°C
Full cure:	7 days @ 25oC 4 days @ 35oC
Recommended application thickness:	3 - 9 mm
Compressive strength: BS 6319-2	≥ 44 MPa @ 7 days
Flexural strength: BS 6319-3	≥ 18 MPa @ 7 days
Tensile strength: BS 6319-7	≥ 6 MPa @ 7 days
Maximum wear depth: BS EN 13892-4	0.09 mm
Bond strength: BS EN 13892-8	> 2 MPa (concrete failure)
Impact resistance: ISO 6272-2	> 10 N.m
Water permeability (5 bar): DIN 1048	Nil
Water absorption: ASTM D570	≤ 0.01%
VOC: ASTM D2369	< 10g/ltr

For asphalt substrates, it should be clean, dry and better to be 8 months old. As no primer for asphalt substrates is required, it is important to have a well prepared substrate; mechanical surface removing equipments as grit blasting can be used.

Contact KINGKRETE Technical Department for further details.

SURFACE PREPARATION

Unsound layers and contaminated concrete surfaces must be prepared using mechanical surface removing equipment. In case of areas deeply contaminated by oil or grease, such areas should be treated with hot compressed air.

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PRIMING

Concrete substrates should be primed with KingFloor Primer. Use lambs wool roller to apply the primer. Apply KingCoat CT500 whilst the primer still wet.

MIXING

To avoid inconsistent workability and pot life, make sure that the materials to be used are stored in shaded area and protected from extremes of temperatures for at least 24 hours prior to application. Prior mixing, stir the liquid components of KingCoat CT500 (base & hardener), mix thoroughly for at least 3 minutes using a forced action mixer. Add the filler and the aggregate and mix until a homogenous mixture is formed, this will take about 4 -5 minutes.

LAYING

Work in lanes of width not exceeding 3 m. Spread the screed on the prepared surface at the required thickness by rack, then tamping and compaction is done by means of proper wooden float and screeding bar or steel trowel. Care should be taken when joining the lanes, to achieve a smooth connection. It is recommended to mask off edges with tape which is then removed while KingCoat CT500 is still wet.

POINTS TO BE CONSIDERED

- ☐ KingCoat CT500 should not be applied on to surfaces known to suffer from damp rising.
- ☐ KingCoat CT500 should not be applied at temperatures below 10°C or where ambient relative humidity exceeds 80%.

CLEANING

KingCoat CT500 can be removed by KINGKRETE solvent prior setting.

PACKAGING

KingCoat CT500 is available in 30 kg packs (15 ltr), consisting of:

- ☐ 4.35 kg Binder (part A & B).
- ☐ 10.15 kg Filler.
- ☐ 15.5 Aggregate.

KingFloor Primer is available in 5 kg packs.

COVERAGE

KingCoat CT500: 3m²/pack/5 mm thickness. KingFloor Primer: 4 - 5 m²/liter.

Chemical Resistance (ASTM D543)	
Acids (m/v)	
Hydrochloric Acid 10%	Resistant
Nitric Acid 10%	Resistant
Phosphoric Acid 10%	Resistant
Sulphuric Acid 10%	Resistant
Alkalis (m/v)	
Ammonia 15%	Resistant
Sodium Hydroxide 25%	Resistant*
Solvents and organics	
Oils, vegetables & minerals	Resistant
Ferric Chloride 15%	Resistant
Kerosene	Resistant
White spirit	Resistant
Xylene	Resistant
Acetone	Resistant
Aqueous solutions	
Water	Resistant
Sea water	Resistant
Raw sewage	Resistant
Sodium chloride sat.	Resistant
Chlorinated water	Resistant
Fuels	
Brake fluid	Resistant
Diesel	Resistant
Kerosene	Resistant
UV resistance	Resistant

Note: Slight discoloration in some cases may occur without affecting the performance of the coat.

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.



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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 Middle East facility are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, ISO 14001 and ISO 45001.

* Properties listed are based on laboratory-controlled tests.
® = Registered trademark of the KingKrete-Group in many countries.

Ref: KK-06007-MEA-R01 | Issue: 01.2026

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.

