KingProof® C300

Flexible acrylic cement modified one component waterproof coating.

DESCRIPTION

KingProof C300 is a one components; flexible polymer modified cementitious waterproof coating suitable for internal and external applications. KingProof C300 provides a hardwearing, seamless, waterproof membrane for potable water retaining structures, tanks, basements, foundations and culverts.

APPLICATIONS

- Waterproofing for water retaining structures and reservoirs.
- Waterproofing of basements, roofs, and foundations.
- Waterproofing of bathrooms and wet areas.
- Protection of concrete substrates and masonry against carbon dioxide, chloride ions, water and de-icing salts.

ADVANTAGES

- Single component, need only water additions.
- Non-toxic, approved for use in contact with potable water.
- Fungus, mould resistant.
- Excellent bond to porous and non-porous surfaces.
- Breathable.
- Durable, excellent protection against carbon dioxide, chloride ions and water.
- Cost effective, quick and easy brush or spray application.
- Suitable for internal and external applications.

STANDARDS

KingProof C300 complies with EN 14891, Type CM.

METHOD OF USE

Substrate Preparation

The surfaces to be coated should be clean, sound, and free from contamination. Remove any traces of curing compound, laitance, organic growth or any other loose materials. This is best obtained by using high pressure water or light grit blasting. Substrate containing honey combing, damaged or deteriorated concrete should be repaired using suitable repair mortars from KINGKRETE repair systems before coating.

PRIMING

No special primer is required, but substrate should be pre-soaked with clean water prior to application of KingProof C300.

TECHNICAL PROPERTIES

Mixed density:	1.50 ± 0.10 g/cm³
Working time:	1 hr
Colour:	Grey
Initial setting time:	4 - 5 hr
Application temperature:	5 - 45ºC
Application thickness:	2 mm (with two coats)
Elongation at break: ASTM D412	≥ 20% @ 28 days, 2 mm (@ 5mm/ min speed rate)
Tensile strength: ASTM D412	≥ 1.0 MPa @ 28 days, 2 mm (@ 5mm/ min speed rate)
Compressive strength: ASTM C109	≥ 8.0 MPa @ 28 days (Mortar consistency)
Flexural strength: ASTM C348	≥ 3.0 MPa @ 28 days (Mortar consistency)
Adhesion strength on C35 concrete: ASTM D4541	≥ 2.0 MPa @ 28 days
Water retention: ASTM C309	Pass @ 2 mm
Water permeability: DIN 1048	Nil @ 5 bars

PROPERTIES	EN 14891 REQUIREMENT FOR TYPE CM	MEASURED VALUE
Tensile adhesion strength:*	≥ 0.5 N/mm2	Pass
Tensile adhesion strength after water contact:*	≥ 0.5 N/mm2	Pass
Tensile adhesion strength after heat aging:*	≥ 0.5 N/mm2	Pass
Tensile adhesion strength after freeze-thaw cycles:*	≥ 0.5 N/mm2	Pass

MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. Add the 4.2 litre water to a clean container. The powder component is then added slowly to the water while mixing continuously with low speed mixer/drill (400 - 600 rpm). Mixing time should be continued for 3 minutes until a uniform consistency is obtained.

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APPLICATION

KingProof C300 can be applied by brush or roller. The mixed material should be brushed well into the surface. Strike off with brush in one direction. Care must be taken not to spread the materials too thin.

The first coat should be applied at a wet film thickness of 1mm. When the material begins to drag, do not add any water, but dampen the surface again.

A minimum of 3 - 5 hours, depending on the prevailing ambient temperature, should be given for the first coat to cure before applying the second coat. If the first coat is fully dried, pre-soaking is needed before applying the second coat.

The second coat should be applied in a perpendicular direction to the previous layer to ensure good bond and coverage.

To achieve a smooth finish, it is recommended to finish the surface with a trowel immediately after brushing the second coat. The total dry film thickness for both coats should be 2 mm.

REMARKS

- KingProof C300 should not be applied to frozen substrates or if ambient temperature is below 5°C or expected to fall below 5°C.
- The area must not be exposed to moving water during application.
- KingProof C300 can be submerged with water after 5 – 7 days of application depending on ambient temperatures and relative humidity.

CLEANING

All tools should be cleaned immediately after finishing using clean water. Hardened materials should be cleaned mechanically.

PROPERTIES	EN 14891 REQUIREMENT FOR TYPE CM	MEASURED VALUE
Tensile adhesion strength after contact with lime water:*	≥ 0.5 N/mm2	Pass
Waterproofing:	No penetration and ≤ 20 g water gain	Pass
Crack bridging under standard condition:	≥ 0.75 mm	Pass

If C2 tile adhesive (as per ISO 13007) is used in conjunction with KingProof C300, results greater than 1.0 N/mm2 are anticipated.

PACKAGING

KingProof C300 is available in 15 kg bags.

COVERAGE

Approximately 12.5 - 13 m²/15 kg for one coat @ 1 mm thickness.

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.

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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.

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