

CIKOcoat PA100



Epoxy Polyamide Protective Coating for steel and concrete surfaces

Description

CIKOcoat PA100 is high solids two-component protective coating based on epoxy polyamide resin providing a semi-flexible Anti-Bacterial and environmentally friendly coating having an excellent chemical and abrasion resistance suitable for steel and concrete substrates.

- Residential garage and basement areas
- Top coating for internal car park system & intermediate coat for external car park systems.
- Food processing and production plants.
- Chemical Industries.

Properties

- Easy to use: brush , roller or spray application
- Cost reducer as no primer is required
- Good abrasion resistance
- Provides excellent adhesion to substrates
- Semi-Flexible coating
- Environment friendly; low VOC
- Excellent chemical resistance
- Anti- Bacterial properties
- Impermeable protective coating with excellent resistance to underground environment

Application Area

CIKOcoat PA100 is suitable to use both in industrial and commercial segments such as:

- Wall and floor coating for concrete and steel protection.
- Water retaining structures such as potable water tanks, reservoirs, water treatment tanks etc.,
- Lining for sewage and effluent plants
- Intermediate coat over epoxy screed and coatings for interior & exterior applications.
- Manhole and pipe lining
- Secondary containments.
- Foundation waterproofing & protective coating
- Intermediate coat for exterior steel pipes and tanks.
- Warehouse flooring
- Reservoir and water treatment plants

Applicable Standards

CIKOcoat PA100 complies with Qatari Construction Specification QCS.

Physical properties @ 25°C

Form	Two component Part-A : Liquid Part-B : Liquid
Colour	Wide variety of colour is available
Mixing ratio	Pre-weighed packs
Mixed Density	1.4±0.05 kg/L
VOC (EPA 24)	<30 g/L
Pot life	3 hours @25°C 2 hours @35°C
Tack Free Time	within 6 hrs @35°C
Over coating	8 to 18 hrs @35°C
Full cure	7 days
Adhesion strength ASTM D4541/ ASTM D7234 @ 7 days	>3.5 Mpa (concrete failure) >5 Mpa (Steel)
Solid content	85±3%
Abrasion Resistance ASTM D4060 (CS10, 1kg, 1000cycles)	<50 mg
Anti-Bacterial reduction in 24 hours incubation at 37°C ASTM E2180-18	>85%

Chemical & Environmental Resistance

CIKOcoat PA100 is resistant to a wide range of chemicals when tested in Accordance to ASTM D543. Specific data is available on request. Resistance to occasional spillages include:

Test Solution	Test Conditions	Observation & Test Result
Sulphuric acid	23± 2°C (24 hours)	No Characteristics Observed (Resistant)
Hydrochloric Acid		
Nitric Acid		
Acetic Acid		
Lactic Acid		
Sodium Hydroxide		
Ammonium Hydroxide		
Sodium Chloride		
Ferric Chloride		
Raw Sewage Water		
Sea Water		
Petrol		
Kerosene		
Hydraulic oil		
Vegetable oil		
Toluene		

Coverage

CIKOcoat PA100 will provide coverage of 9.0m² to 10 m² per litre at 100 microns wet film thickness (85 microns dry film thickness).

Note: The coverage depends on the substrate type, condition and finish. Consult our technical service department for assistance.

Application instructions

Surface preparation of concrete

The concrete surface shall fully cured free from dust and loose particles. All contamination such as oil, grease and extraneous spillages has to be cleaned using the suitable cleaning agent. Concrete surface shall be grinded, grit blasted or treated with equivalent and suitable mechanical means prior to the application of CIKOcoat PA100.

All surface irregularities, blowholes must be repaired and resurfaced using CIKOpoxy Putty or CIKOMortar FC as per its respective technical data sheets.

Surface preparation & priming of Steel

Steel surfaces should be grit or sand blasted to reach a bright and clean finish free of rust complying with the requirements of the Swedish standard SA 2^{1/2}. Immediately prime the treated steel surface with an epoxy-zinc rich based primer applied at a thickness ranging from 50 up to 80 microns dry film thickness.

Priming of Concrete surfaces

Priming is not required on properly prepared concrete surfaces. However, on highly porous substrates it is advisable to apply a single coat of an epoxy-based primer among CIKOpoxy Prim ranges.

Mixing

The base component [Part-A] of CIKOcoat PA100 should be mixed thoroughly using a heavy duty slow speed drill-paddle assembly for two minutes and ensure that all settled particles are dispersed and that a homogenous mix with uniform colour is obtained.

Pour the hardener component [Part-B] into the mixed base component [Part-A] and mix well for 3 to 5min to achieve a homogeneous and uniform consistency.

Application method

Properly mixed material should be applied using brush, high quality epoxy roller, or spray machine over the clean dry and repaired/primed dry substrate, maintaining the required thickness.

It is recommended to apply at least two coats to obtain a full-unbroken coating.

The first coat has to be applied a rate between 0.15 L/m² to 0.2 L/m² and kept for 8 hours to 24 hours at 35°C before application of the second coat at the consumption rate.

The total dry film thickness depends on the application area, performance requirement and specifications. Consult CIKO technical service department for further support.

Cleaning

Equipment has to be cleaned with CIKOsol immediately after usage.

Precautions

Prior application of CIKOcoat PA100, ensure that

- The substrate moisture content is less than 4%.
- The ambient temperature is between 10 – 45°C.
- The substrate temperature is between 10 – 35°C and at least 3°C above dew point temperature.
- The relative humidity is below 75%.

Packaging

CIKOcoat PA100 is available in 4.0 litre and 15 litre kits consisting of Part-A & B.

Shelf life

CIKOcoat PA100 has a shelf life of 12 months if, stored in accordance with CIKO instructions.

Storage

CIKOcoat PA100 should be stored under enclosed shaded area at temperatures between 5 – 35°C.

Health & safety

CIKOcoat PA100 should not come in contact with eyes or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours. Applicator should wear appropriate clothes, gloves and goggles. Use of barrier cream is recommended to provide additional skin protection. If comes in contact with eyes, flush with plenty of fresh water and seek medical advice.

Refer Material Safety Data Sheet for further details.

Technical Support

For further technical support, do not hesitate to contact CIKO team at any time as CIKO offers on and off site services to end users, specifier and contractors.

More from CIKO Middle East

A wide range of construction chemical products are manufactured by CIKO Middle East which includes:

- Concrete admixtures and additives
- Waterproofing and damp proof coatings
- Surface treatments
- Flooring and toppings
- Grouts and anchors
- Tile adhesives and grout
- Concrete repair materials
- Adhesives and bonding agent
- Protective coating
- Joint Sealants and Moulding compounds
- Ancillaries