

CIKOcoat EPW

Smart Chemical Solutions



Solvent Free non-toxic epoxy based protective coating for water retaining structures

Description

CIKOcoat EPW is a solvent free, nontoxic two component; epoxy based protective coating system recommended for concrete and steel. It provides excellent adhesion to substrate such as concrete, wood, steel etc.

CIKOcoat EPW is based on liquid epoxy cured with a special grade of hardener. It offers seamless coating and protection against ingress of water under hydrostatic pressure.

Properties

- Two component epoxy based system.
- Easy to apply using brush or roller.
- Easy maintenance and good resistance to chemical and fungal growth.
- Non-toxic
- Low VOC
- Available in standard range of colours.

Application area

CIKOcoat EPW as a protective coating is suitable to use both in industrial and commercial segments such as,

- Hospitals and laboratories.
- Water retaining structures such as potable water tanks, pipes, reservoirs, water treatment tanks etc.,
- Food storage areas.
- Meat processing areas.
- Pharmaceutical industries.
- Food production areas.

Physical Properties

Form	Two component system Part-A : Liquid Part-B : Liquid
Colour	Standard colours
Solids	99-100%
Mixing ratio	Pre-weighed packs
Pot life @ 25 °C	40-60 minutes
Surface dry	3-4 hours
Tack free	Approx. 8 hours
Final cure	7 days
Allowable foot traffic	24 hours
Pull off bond strength ASTM D7234 @ 7 days (C40/50 concrete substrate)	>3.5 Mpa
Compressive strength ASTM D695-10 @ 7 days	>90 MPa
Abrasion Resistance ASTM D4060 (CS10, 1kg, 1000cycles)	<50 mg
Flexural strength ASTM C580 @ 7 days	>35 MPa
Tensile strength ASTM D412	>20 MPa
Tear Resistance ISO34-B	>70 N/mm
VOC (EPA 24)	<20g/l
Water penetration BS EN 12390-8 @ 7 days	NIL
Water Absorption ASTM D570	<0.07%

Chemical Resistance

CIKOcoat EPW is resistant to a wide range of chemicals. Specific data is available on request. Resistance to occasional spillages include,

- Diluted acids
 - Sulphuric acid
 - Hydrochloric acid
 - Acetic acid
 - Lactic acid
- Diluted alkalis
 - Sodium hydroxide
 - Ammonia solution
- Toluene, Petrol & Kerozene
- Hydraulic oil
- Vegetable oils, Used sump oil, Sodium chloride

Coverage

CIKOcoat EPW is designed to be applied in two coats to achieve 400µ DFT with a coverage rate 5.0m² per litre @ 200 microns DFT/coat

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

Application instructions

Surface preparation

The concrete surface should be 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 shall be grinded, grit blasted or treated with equivalent and suitable mechanical means prior to the application of the primer.

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

Application of primer

In general cases properly prepared and repaired concrete does not require any priming. For porous substrate, CIKOpoxy Prim 14/11/S is recommended to be applied.

The base and hardener components of CIKOpoxy Prim14/11/S should be mixed thoroughly using a heavy duty slow speed drill-paddle assembly for three to five minutes and ensure a homogenous mix. Application of primer should be carried out as per the respective technical data sheet. Allow the primer to dry for 12 -24 hours depending on the prevailing ambient conditions.

Application of top coat

The base [Part-A] should be stirred first to disperse any settlement. The entire container of the hardener [Part-B] should be poured completely into the base container and mixed thoroughly until uniform colour is obtained. It is recommended to use heavy duty slow speed drill-paddle assembly for two three minutes and ensure a homogenous mix.

Properly mixed material should be applied using brush or roller over the dry and clean primed surface, maintaining the required thickness. The coated surface should be left for 12 – 24 hours curing, depending on the prevailing ambient conditions.

It is always recommended to apply CIKOcoat EPW in two coats achieving at least 400 microns dry film thickness or as a single coat of higher thickness in horizontal applications. The high-build coat should be spiked using spike rollers to release entrapped air in the material to obtain a uniform, smooth and even finish.

Precautions

Prior application of primer and coating, ensure that

- Moisture content of the substrate is less than 4%.
- Ambient temperature is between 10 – 45°C.
- Substrate temperature is between 10 – 35°C and at least 3°C above dew point temperature.
- Relative humidity is below 75%.

Packaging

CIKOcoat EPW and CIKOpoxy Prim 14 are available in 4.0 litre & 15 litre kits consisting of Part-A & B.

Shelf life

CIKOcoat EPW has a shelf life of 12 months if stored in accordance with manufacturer instructions.

Storage

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

Health & safety

CIKOcoat EPW should not come in contact with eyes or to 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 any 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

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Note: The information presented herein based on the best of our knowledge and expertise for which every effort is made to ensure its reliability. Although all the products are subjected to rigid quality tests and are guaranteed against defective materials and manufacture, no specific guarantee can be extended because results depend not only on quality but also on other factors beyond our control.



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فاكس : ٩٧٤ ٤٤١١ ٤٧٩٢

P.O.Box : 295, Doha, Qatar
T: (+974) 4411 4787 / 4411 4790 / 4411 4794
F: (+974) 44114792
E-mail: enquiries@cikome.com