

CIKOcoat EPU



Flexible Hybrid Epoxy-Polyurethane Protective Coating

Description

CIKOcoat EPU is two components protective coating based on hybrid combination of epoxy and polyurethane resins cured with a combination of special hardeners which upon curing provides a flexible watertight and protective coating film.

CIKOcoat EPU is designed to be applied over properly prepared concrete and steel surfaces subjected to variation of temperature and permanent exposure to water, sea water, treated sewage, raw sewage, etc.

Properties & Advantages

- Easy to mix and handle, application can be done using brush, roller or spray machines.
- Good abrasion resistance
- Provides excellent adhesion to concrete and steel substrates
- flexible coating upon curing at several thicknesses
- Low VOC, environmentally friendly
- Excellent chemical resistance
- Excellent Crack bridging properties

Application Area & Uses

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

- Wall and floor coating for concrete protection
- Water retaining structures such as water tanks, reservoirs, water treatment tanks etc.,
- Lining for sewage and effluent plants
- Internal and external manhole and pipe lining

Applicable Standards

CIKOcoat EPU complies with Qatar Construction Specification QCS.

Coverage

15 L kit CIKOcoat EPU covers 73 to 75 m² at 200 microns DFT. Minimum 2 coats are recommended to achieve minimum 400 microns total DFT.

The above given coverage figures are theoretical. Actual coverage may be reduced depending on the substrate type, substrate condition, wastage and finish.

Physical properties

Form	Two components Part-A : Liquid Part-B : Liquid
Colour	Available in wide range of colours
Mixing ratio	Pre-weighed packs
Mixed Density	1.35 ± 0.05 kg/L
VOC (EPA 24)	<20 g/L
Pot Life	40-60 minutes @ 25°C 20-30 minutes @ 35°C
Tack Free Time	within 6 hrs
Over coating	Minimum 8 hours Maximum 24 hours
Full cure	7 days @25°C
Pull off Adhesion Strength	≥2 MPa (concrete Failure) ≥ 6 MPa (Treated steel)
Service temperature	-20°C to 70°C

Chemical Resistance

CIKOcoat EPU is resistant to a wide range of chemicals when tested in Accordance to ASTM D543. Specific data is available on request.

Application instructions

Surface preparation of Concrete

The substrate shall be clean, sound, dry, and free from dust, oil, grease, laitance, and other contaminants. Prepare the surface by diamond grinding. Repair all surface defects, blowholes, and irregularities before application.

Surface preparation of Metal

Prepare steel surfaces by grit or sand blasting to **Sa 2½** in accordance with the Swedish Standard, ensuring the surface is free from oil, grease, rust, mill scale, and existing coatings.

Priming of concrete surface

Priming is not required on properly prepared and repaired concrete substrates. For highly porous concrete, apply a suitable epoxy primer from the CIKOpox Prim range before coating.

Priming of Metal surface

Coat the prepared steel surface immediately after blasting to prevent flash rusting. Where immediate coating is not possible, apply 2 component zinc-rich epoxy primer or a 100% solids epoxy primer such as CIKOpoxy Prim 14.

Mixing

Pre-mix Part A for 1–2 minutes using a heavy-duty low-speed drill with a mixing paddle. Gradually add Part B and mix for a further 2–3 minutes until a smooth, homogeneous, and uniform mixture is obtained.

Application method

Apply the thoroughly mixed material by brush, roller, or spray onto a clean, dry substrate, ensuring the specified film thickness is achieved. Apply a minimum of two coats. The first coat shall be applied at a minimum WFT of 200 microns, with the second coat applied within 24 hours of the first coat. If the maximum overcoating interval is exceeded, the surface must be mechanically abraded before applying subsequent coats.

CIKOcoat EPU may be reinforced with glass fibre cloth. Embed the cloth into the first coat while still wet, ensuring it is fully pressed in and free of air pockets, then apply the second coat. A third coat may be required to completely encapsulate the reinforcement.

Precautions

- 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%.
- Do not apply CIKOcoat EPU over movement joints and sealants.
- Exposure to direct sunlight and UV rays change the colour of the coating. It is advisable to apply an additional thin coat of CIKOcoat UV333 to maintain colour stability if required.

Packaging

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

Legal Notice and Warranty

CIKO warrants this product to be free from manufacturing defects and to meet the technical properties stated in the current Technical Data Sheet, if used as directed within its shelf life. Satisfactory results depend not only on quality of product but also on many factors beyond our control. CIKO makes no other warranty or guarantee, express or implied, including warranties of merchantability or fitness for a particular purpose with respect to its product. The sole and exclusive remedy of purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the sole option of CIKO. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by purchaser. CIKO will not be responsible for any special incidental, consequential including lost profits or punitive damages of any kind. Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on CIKO's present knowledge and experience. However, CIKO assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. CIKO reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified expert.

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All CIKO products are manufactured under a strict management system conforming to and in compliance with requirements of international standards of Quality, Environmental, occupational Health and Safety ISO 9001, ISO14001 and ISO45001.

Shelf life

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

Storage

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

Health & safety

CIKOcoat EPU should not contact 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 it contacts 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