CIKOpoxy FL100-F

Solvent free pure epoxy resin floor coating

Description

CIKOpoxy FL100-F is a solvent free two components epoxy-based floor coating system recommended for protection of concrete and other suitable substrates.

CIKOpoxy FL100-F is based on high quality pigmented liquid epoxy resin cured with a special grade of hardener that requires proper mixing on site for usage. The cured coating offers a seamless floor topping with total thickness ranging from 0.4 to 1.0mm applied in several coats resulting in a smooth and seamless floor finish.

Advantages & Properties

- Two component epoxy-based product easy to mix and apply.
- Good resistance to spillages of most chemicals, hydrocarbons, and solvents.
- Exhibits good wear and abrasion resistance.
- Hygienic with high resistance to fungal growth
- Easy to clean and maintain
- Provides durable floor
- Available in a wide range of light reflective colours to provide a brighter work area

Application Area & Uses

CIKOpoxy FL100-F is a suitable floor coating for industrial, commercial, and residential segments such as,

- Warehouse, stores, offices, production, and operation areas
- Utility services rooms in commercial buildings
- Car parks, driveways, walkways, ramps
- Light engineering workshops

Physical properties

Form	Two component system Part-A : Liquid Part-B : Liquid
Colour	Available in wide range of colours including RAL codes
Solids	99-100%
Mixing ratio, (By weight)	A:B = 100:14
Pot life	45 to 60 mins @ 25°C 30 to 40 mins @ 35°C
Mixed Density	1.53 ± 0.03 Kg/L
Recommended over coating time	12 hours (minimum) 36 hours (maximum)
Surface dry	8 to 12 hours
Final cure	7 days
Allowable foot traffic	Approx. 24 hours
Compressive Strength ASTM D695-10	75 N/mm^2 @ 7 days
Tensile Strength ASTM D638	≥12 N/mm^2 @ 7 days
Flexural Strength ASTM C580	≥30 N/mm^2 @ 7 days
Pull off Adhesion Strength ASTM D 7234	≥1.5 N/mm^2 (Concrete failure)
Water Absorption ASTM D570	≤0.05%
Slip Resistance BS EN 14231	≥75 PTV (smooth) ≥90 PTV (with CIKO ASG)
Abrasion resistance ASTM D4060 (CS10,1 kg,1000 cycles)	≤25 mg
Shore A Hardness ASTM D2240	95±3 (7 days)
Shore D Hardness ASTM D2240	75±3 (7 days)

Chemical Resistance
CIKOpoxy FL100-F is resistant to a wide range of chemicals when tested as per ASTM D543, Patching Method. Specific data is as below table:

Test Solution	Test Conditions	Observation & Test Result
Sulphuric acid	23± 2°C (7 days)	No Characteristic Observed (Resistant)
Hydrochloric Acid		
Acetic Acid		
Lactic Acid		
Sodium Hydroxide		
Ammonium Hydroxide		
Sodium Chloride		
Petrol		
Kerosene		
Hydraulic oil		
Vegetable oil		

Coverage
24 kg kit of CIKOpoxy FL100-F will provide a theoretical coverage between 77 and 80 m^2 at 200 microns DFT.
Note: The coverage depends on the floor condition, type of finish and wastage. Consult CIKO technical department for assistance.

Application instructions
Surface preparation of concrete and screeds
The concrete and screed shall be fully cured aged at least 28 days achieving a compressive strength and surface pull off tensile strength of 25 N/mm^2 and 1.5 N/mm^2 respectively. The concrete surface should be free from dust and loose particles or weak thin layers. All contamination such as oil, grease and extraneous spillages must be cleaned using the suitable cleaning agent. Concrete shall be diamond disk grinded, grit/shot blasted or treated with equivalent and suitable mechanical means having a surface moisture content not exceeding 4%.
All cracks, deteriorated areas, movement joints shall be well treated and addressed prior to the application of the primer or first coat of CIKOpoxy FL100-F.

Priming
Usually priming is not required, unless CIKOpoxy FL100-F is to be applied over bare concrete or on highly porous substrates.

For porous surfaces, use a low viscosity two components epoxy-based primer such as CIKOpoxy Prim 11 or CIKOpoxy Prim 14 to prime the substrate. The base [Part-A] and hardener [Part-B] components of the primer should be mixed thoroughly using a heavy duty, adjustable speed drill paddle assembly for three to four minutes and ensure a homogenous mixture is obtained.

For concrete surfaces that are of medium to low porosity and subject to heavy traffic, it is recommended to use CIKOpoxy Prim14 or CIKOpoxy Prim 14- SF.

To improve mechanical bonding and achieve an anti-slip textured surface, broadcast CIKO ASG over the still wet primer.

Application instructions 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 prior proceeding with application of CIKOpoxy FL100-F further coats.

Application of topcoats
The base component [Part-A] of CIKOpoxy FL100-F should be mixed thoroughly using a heavy-duty adjustable speed drill-paddle assembly for one minute separately to ensure a homogenous mix with uniform colour. whilst mixing, pour the hardener component [Part-B] into the mixed base component [Part-A] and further mix for 2 to 3 minutes to achieve a homogeneous mixture.

Properly mixed material should be applied using brush or high-quality roller over the dry and clean primed surface at the required consumption rate to maintain 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 CIKOpoxy FL100-F in two coats or as a single coat of higher thickness. 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 and during application of primer and coatings, 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%.
- Rain, water spillage or water condensate is not expected within the next minimum 12-18 hours.

Recommendations

- When CIKOpoxy FL100-F is applied in areas exposed to direct sunlight and UV rays, it is recommended to apply a final UV stable and resistant coating such as CIKOcoat UV333.
- The total thickness of the applied epoxy coating is relatively dependant on application area, service requirements and conditions in addition to specifications. Consult CIKO technical department for further support and assistance.

Packaging

CIKOpoxy FL100-F is available in 24 kg kits consisting of Part A & B.
CIKOpoxy Prim 11 and CIKOpoxy Prim 14 are available in 4 and 15 litres packs consisting of Part A & B.
CIKOpoxy Prim 14-SF is available in 26 Kg packs consisting of Part A & B.

Storage

CIKOpoxy FL100-F should be stored under cool enclosed shaded area away from rain, moisture, and direct sunlight at temperatures between 5°C and 35°C.

Shelf life

CIKOpoxy FL100-F has a shelf life of 12 months if stored in accordance with CIKO's storage instructions.

Health & safety

CIKOpoxy FL100-F should not contact eyes, skin or swallowed. Ensure adequate ventilation and avoid inhalation of vapours.
Applicator should wear suitable clothes, gloves, masks, and goggles. It is recommended to use barrier creams to provide additional skin protection. If the product 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.

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