

CIKOPOXY CONDUCTIVE



Epoxy based, solvent-free static conductive floor (Resistance between 5×10^4 and 1×10^6 ohms)

Description

CIKOpoxy Conductive is a solvent-free epoxy material providing after application a smooth floor with conductive properties.

The system include an epoxy primer, a very conductive epoxy under coat (0.2mm) and a thick conductive top coat (2-3mm).

Other than providing the conductive properties of the floor, CIKOpoxy Conductive will provide a chemical resistance & durable floor.

Properties

- Pre-weight multi component epoxy based system.
- Easy to apply.
- Static electrical control: Provide conductive flooring for static electricity to pass effectively through to earth
- Exhibits good wear and abrasion resistance
- Seamless finish; easy to clean and maintain hygienic.
- Resistance to general chemicals.
- Excellent durability and impact resistance.

Application area

CIKOpoxy Conductive as floor topping is suitable to use both in industrial and commercial segments such as,

- Hospitals Operation Rooms
- Laboratories.
- Electronic manufacturing industries
- Production and storage areas.
- Electricity substation floors.

Electrical Properties

| | |
|--|---|
| Surface Resistance (ASTM F150-78) | 5×10^4 to 1×10^6 ohms |
| Bulk resistance (DIN51953) | 5×10^4 to 1×10^6 ohms |
| Charge Decay (Fed. Spec. 101C Method 4046) | 5000v to zero in less than 0.1 seconds |

Physical properties for Base Coat

| | |
|---|--|
| Form | 2 component system Part-A & B: Liquid |
| Mixing ratio | Pre weighed packs |
| Pot life @ 25 °C | 50-60 minutes |
| Final cure | 7 days |
| Compressive strength ASTM C579 @ 7 days | ≥60 MPa |
| Flexural Strength BS 6319-3 @ 7 days | ≥28 MPa |
| Tensile Strength ASTM D638-14 @ 7days | ≥8.5 MPa |

Physical properties for Top Coat

| | |
|--|---|
| Form | 3 component system Part-A & B: Liquid Part-C : Powder |
| Mixing ratio | Pre weighed packs |
| Pot life @ 25 °C | 30-40 minutes |
| Foot traffic | After 16 to 24 hours |
| Final cure | 7 days |
| Compressive strength ASTM C579 | ≥60 MPa |
| Flexural Strength BS 6319-3 @ 7 days | ≥28 MPa |
| Tensile Strength ASTM D638-14 @ 7 days | ≥8.5 MPa |
| VOC | <10g/l |

Chemical resistance

CIKOpoxy Conductive is resistant to occasional spillages of a wide range of chemicals:

- Diluted acids: Sulphuric acid, Hydrochloric acid, Acetic acid, Lactic acid, Nitric acid, Citric acid, etc.
- Diluted alkalis: Sodium hydroxide, Ammonia solution, etc.
- Others: Toluene, Petrol, Kerosene, Hydraulic oil, Vegetable oils, Sodium chloride

Coverage

CIKOpoxy Conductive will provide coverage as per below:

Base Coat: 4-5 m²/ltr @ 200 DFT.

Top Coat: 3.2kg/m² @ 2mm DFT.

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

Application instructions

Surface preparation

The concrete surface should be free from dust and loose particles. All contamination should be treated well before application of primer.

Application

Priming:

CIKOpoxy Prim14, a two component epoxy based primer shall be used for priming the substrate. The base [Part-A] and hardener [Part-B] components of CIKOpoxy Prim14 should be mixed thoroughly using a heavy duty, slow speed drill paddle assembly for three to five minutes and ensure a homogenous mix is obtained. 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 Base Coat material

The base component [Part-A] of CIKOpoxy Conductive should be mixed thoroughly using a heavy duty slow speed drill-paddle assembly for two minutes and ensure that a homogenous mix with uniform colour is obtained. Transfer the mixed base component [Part-A] completely to a suitable container that can hold a volume of minimum 20 lts. Pour the hardener component [Part-B] into the mixed base component [Part-A] and mix well to homogeneity.

Properly mixed material should be applied using brush or roller over the dry and clean surface at the rate of 5.0 m²/ltr.

Application of Top Coat material

The base component [Part-A] of CIKOpoxy Conductive should be mixed thoroughly using a heavy duty slow speed drill-paddle assembly for two minutes and ensure that a homogenous mix with uniform colour is obtained. Transfer the mixed base component [Part-A] completely to a suitable container that can hold a volume of minimum 20 lts.

Pour the hardener component [Part-B] into the mixed base component [Part-A] and mix well to homogeneity. Add the powder component Part-C to the properly mixed Part-A & Part-B and mix well to obtain a homogenous mass.

Properly mixed materials should be spread over the dry and clean surface using a notched trowel maintaining the required thickness. Immediately spike the applied surface using spike rollers to release entrapped air in the material to obtain a uniform, smooth and even finish. The coated surface should be left for 12 – 24 hours curing, depending on the prevailing ambient conditions.

Precautions

Prior application of primer and CIKOpoxy Conductive, ensure that:

- Moisture content of the substrate is less than 4%.
- Ambient temperature is between 10 – 45⁰C.
- Substrate temperature is between 10 –35⁰C.
- Relative humidity is below 75%.

Packaging

CIKOpoxy Conductive is available as per below:

- CIKOpoxy Prim 14: 4ltr/kit
- CIKOpoxy Conductive Base Coat: 4ltr/kit
- CIKOpoxy Conductive Top Coat: 15kg/kit

Shelf life

CIKOpoxy Conductive has a shelf life of 12 months if stored in accordance with CIKO instructions.

Storage

CIKOpoxy Conductive should be stored under enclosed shaded area at temperatures between 5 –35⁰C.

Health & safety

CIKOpoxy Conductive 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 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

