

CIKOpoxy Conductive System



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

Description

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

The system includes an epoxy primer, a conductive epoxy base coat (0.2mm) and a top dissipative top coat (2-3mm).

Advantages & Benefits

- 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 Areas & Uses

CIKOpoxy Conductive 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)	3×10^4 to 1×10^6 ohms
Surface Resistance Base coat primer (ASTM F150-78)	3×10^4 to 1×10^6 ohms
Surface Resistance to ground (ASTM F150-78)	3×10^4 to 1×10^6 ohms

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 / Yield

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.

Primer application:

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 (optional depending of earthing point layout or the use of CIKO copper conductive tape)

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 litres. 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/litre.

NB: All layout of copper tape must be in accordance with our method statement and must be verified as per project earthing points.

It is also not necessary to use CIKO Conductive primer and can be substituted with copper tapes or the exclusion of copper tapes as per our Method statement guidelines.

Application of Top Coat material

The base component [Part-A] of CIKOpoxy Conductive must 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 litres.

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 – 45 °C.
- Substrate temperature is between 10 –35 °C.
- Relative humidity is below 75%.

Packaging

CIKOpoxy Conductive is available as per below:

- CIKOpoxy Prim14: 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 – 35°C.

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.

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

- Concrete admixtures and additives
- Waterproof and Damp-proof coatings
- Surface Treatments
- Walls, Flooring and Toppings
- Grouts and anchors
- Tile Adhesives and Grouts
- Concrete Repair Materials
- Adhesives and Bonding Agents
- Protective Coatings & Sealers
- Joint Sealants and Moulding compounds
- Sports Flooring
- Plastering Mortars
- Paints

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 experts.

TDS/ FT24 Rev.:4 Issue: C

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.