

CIKOpoxy Floor SDX



Epoxy Resin Based, Heavy Duty, Trowel Grade Floor Screed and Repair Mortar

Description

CIKOpoxy Floor SDX, is 100% solids epoxy based three components floor screed and repair mortar suitable for concrete and screed substrates.

CIKOpoxy Floor SDX is based on liquid epoxy resin cured with special grade of hardener and reinforced with graded fillers and aggregates. It offers a tough floor surface applicable in thicknesses ranging between 4 mm and 40 mm.

Properties & Advantages

- Three components epoxy-based screed and floor repair mortar.
- Resistant to wearing and abrasion
- Resistant to wide range of chemicals, acids, hydroxides, etc.
- Smooth and textured surface depending on finishing methodology.
- High compressive and flexural strength
- Resistant to strong impacts
- withstands heavy dynamic and static loads.

Application Area & Uses

CIKOpoxy Floor SDX is suitable to be applied as a floor screed and repair mortar in both industrial and commercial segments requiring heavy mechanical and wear resistance such as:

- Warehouses and stores floors.
- Intermediate screed layer in heavy manufacturing plants and factories
- Heavy duty workshops
- loading bays, parking, driveways.
- Repair mortar and underlayment for all CIKO traffic and floor coating systems.

Physical properties

Form	3 components system Part-A & B: Liquids Part-C: Powder
Colour	Standard grey/beige colours
Mixing ratio	Pre-weighed packs
Mixed Density (depending on degree of tamping)	2.1 ± 0.05 Kg/L
Working time	35-45 minutes @ 25 °C 20-30 minutes @ 35 °C
Final cure	7 days @ 25°C
Overcoating and subsequent finishes	18-24 hours
Compressive strength ASTM C579	≥85 N/mm ² @ 7 days
Flexural Strength ASTM C580	≥25 N / mm ² @ 7 days
Pull off Bond Strength to primed concrete BS EN 1542/1015	≥ 2 N/mm ² @ 7 days (concrete Failure)
Pendulum Test (Slip Resistance) BS EN 14231	≥75 PTV (SRV) (Trowel finished)
Permanent service temperature	5°C - 70°C
Shore D hardness ASTM D2240	80-85
Shore A Hardness ASTM D2240	90-95
Water Absorption ASTM D570	≤0.1%
VOC USEPA (24)	<10 g/L

Chemical resistance

CIKOpoxy Floor SDX is resistant to occasional spillages of wide range of chemicals including acids, hydroxides, chlorides, hydrocarbons, etc. when tested as per ASTM D543. Specific data is available upon request.

Yield and Coverage

A 27 kg kit of CIKOpoxy Floor SDX yields 13 L of fresh mortar/screed providing a coverage of 3.25 m² up to 3.5 m² at 4 mm dry film thickness.

Note: The coverage is subject to alteration as it depends on the floor condition, degree of tamping, variation in level, surface finish and wastage.

Application Instructions

Concrete/Screed Substrate preparation

The concrete/screed must be fully cured, aged at least 28 days, has achieved minimum compressive strength of 30 N/mm² and a surface pull-off strength of minimum 2 N/mm². The concrete surface should be free from dust and loose particles that may impede adhesion. In case of traces of oil and grease, the surface shall be treated by acid etching. Concrete surfaces are to be mechanically prepared to remove laitance and achieve a flat textured surface, grit blasting, rough grinding or surface profiling equipment's are preferred.

Curing compounds and sealers, if present, must be removed by mechanical diamond disks grinder. The final step in cleaning should be complete removal of all residues with an industrial vacuum cleaner, electric air blower or air compressor.

The concrete/screed surface must have a surface moisture content not exceeding 4% with no possibility of capillary rising damp.

Cracks, holes, control joints, expansion joints and terminations must be addressed, repaired and prepared with the appropriate CIKO concrete repair products prior to the application of the primer and screed. Consult CIKO technical service department for further support.

Priming

CIKOpoxy Prim 11, CIKOpoxy Prim 14 or CIKOpoxy Prim 14-SF are recommended to prime and seal the surface. These primers are two components epoxy-based primers.

The base [Part-A] and hardener [Part-B] components should be mixed thoroughly using a heavy duty, adjustable speed drill paddle assembly for 2 to 3 minutes and ensure a homogenous mixture is obtained.

Application of primer should be carried out using a medium nap high quality epoxy roller or brush

as per the application instructions and consumption rates mentioned in its respective technical data sheets. Whilst the primer is still tacky/wet, the screed application shall take place to ensure a monolithic flooring system.

Mixing and Application of CIKOpoxy Floor SDX

The base component [Part-A] of CIKOpoxy Floor SDX should be mixed thoroughly using a heavy-duty adjustable speed drill-paddle assembly for 1 to 2 minutes to achieve a homogenous and uniform colour mixture. Transfer the mixed base component [Part-A] completely to a wide and suitable container of minimum volume capacity of 25 litres.

Pour the hardener component [Part-B] into the mixed base component [Part-A] whilst the mixer is in running mode and further mix for 1 to 2 minutes. After then dispense gradually [Part-C] to the properly mixed [Part-A] & [Part-B] and continue mixing at high speed for at least 2 to 3 minutes to attain a homogenous wetted mass mortar. It is applicable to use a forced shear pan mixer however the properly mixed [Part-A] and [Part-B] shall be added to the [Part-C]. It is applicable to reduce 10% by weight of [Part-C] if the application thickness is less than 15 mm and an easy spreadable consistency is required.

Place the properly mixed mortar/screed over the tacky/wet primed surface and spread it using an aluminium bar or rake maintaining the required thickness guided by screed level rails. Tamp and compact the levelled screed surface then finish it using a stainless-steel trowel or power floater. CIKOsol shall be used for continuous cleaning of the aluminium bar, stainless steel trowel and power float as required. Do not power float if the applied thickness is less than 10 mm.

Protect the applied screed for at least 18 – 24 hours from any source of water, traffic or condensate.

Precautions & Limitations

- Moisture content of the substrate is less than 4% prior to primer application and there are no risks of rising dampness.
- Ambient temperature during application must be between 10°C – 45°C.
- During application the substrate temperature ranges between 10°C – 35°C.
- During application and the first 24 hours, the relative humidity must be below 75%.
- [Part-C] contains several grades of fillers and aggregates which are natural products, therefore colour differences might occur.
- Do not apply CIKOpoxy Floor SDX over an unrepaired crack or movement/control joints.

Subsequent Finishes and Coatings

Allow CIKOpox Floor SDX to cure for at least 24 hours prior proceeding with any subsequent coating materials from CIKOpox or CIKOcoat wide range of products.

The surface of CIKOpox Floor SDX may be mechanically smoothed using plastic coated disk. Any touch ups to the surface can be done using CIKOpox Putty as per the written instructions in its technical data sheet.

Packaging

CIKOpox Floor SDX is available in 27 kg kits consisting of [Part-A], [Part-B] & [Part-C].

Storage

CIKOpox Floor SDX should be stored under enclosed shaded area away from direct sunlight, rain or moisture at temperatures between 5°C – 35°C.

Shelf life

CIKOpox Floor SDX has a shelf life of 12 months if stored in accordance with CIKO instructions.

Health & Safety

CIKOpox Floor SDX should not meet 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 meets 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

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.

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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.



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