

# CIKOcem PUR-SC



## Three-Component Polyurethane-Cement Based Seal Coating

### Description

CIKOcem PUR-SC is a three-component, solvent free, polyurethane-cement based coating that exhibits excellent chemical resistance and abrasion resistance. CIKOcem PUR-SC can be applied as stand-alone coating or as a seal top coat.

### Advantages & Benefits

- Self-smoothing three components polyurethane- cement based system.
- Exhibits excellent chemical resistance with non-staining effect.
- Non taint and odourless having very low VOC.
- Can be applied immediately over well prepared concrete, primer might not be required.
- Resistant to abrasions and physical impacts.
- Reduce and eliminate the microbial growth leading to Hygienic medium.
- Retains physical properties through wide temperature range -10°C to 70°C.
- Withstand intense steam cleaning with a thermal shock resistance up to 70°C.

### Application Areas & Uses

CIKOcem PUR-SC is suitable for:

- Food Processing Plants
- Wet and dry process areas
- Cold rooms
- Chemical process plants & laboratories
- Warehouses and storages areas
- Commercial and residential buildings
- Seal coat for covings

### Physical properties @ 25°C

Form	Part A: Liquid Part B: Liquid Part C: Powder Part D: Powder
Colour	Wide range
Mixed Density (fresh)	1.35 ± 0.05 g/ml

Mixing ratio	Pre-weighed packs
Pot life @ 25°C	20 to 25 minutes
Shore D Hardness ASTM D2240	75 - 80
Pull Off Bond Strength to concrete ASTM D7234 @ 28 days	≥2 MPa

### Chemical Resistance:

CIKOcem PUR-SC is resistant to a wide range of chemicals. Specific data is available upon request.

### Coverage / Yield

1 L (1.35 kg) of fresh CIKOcem PUR-SC material covers 2 m<sup>2</sup> @ 500 microns DFT.

Note:

-The coverage depends on the floor condition and finish.

-Refer to CIKOcem PUR build up systems brochure for recommended thicknesses.

### Application instructions

#### Surface preparation

The concrete surface should be fully cured achieving a minimum compressive strength and pull off strength of 25 MPa and 1.5 MPa respectively.

The concrete surface should be free from dust and loose particles. In case of traces of oil and grease, the surface shall be treated by acid etching, sand/grit blasting, or any other suitable mechanical means. Curing compounds and sealers, if present, must be removed by mechanical grinding using diamond disk. The final step in cleaning should be complete removal of all residues with a vacuum cleaner or water pressure washing.

All cracks and holes must be repaired with one of the suitable CIKO wide range of concrete repair materials. Consult CIKO technical service department for further support.

Concrete surfaces are to be mechanically prepared to remove laitance and achieve a flat surface, grit blasting or surface profiling equipment are preferred.

If CIKOcem PUR-SC is to be applied over one of CIKOcem PUR range of products, abrade the surface using sanding papers to create an additional mechanical key bonding aside of the chemical.

### **Application**

#### **Primer application:**

Primer is not usually mandatory under typical circumstances. However, due to quality variation of concrete in regards of absorption porosity, surface temperature, and humidity content, it is recommended to evaluate and determine if the substrate must be primed. For further support consult CIKO technical service department.

#### **Mixing**

CIKOcem PUR-SC is a ready to mix three components material that requires only suitable heavy-duty high-speed drill-mixing paddle assembly. Mix the liquid [part-A] in its original packing to achieve a homogenous mixture and color then dispense it in a clean container of minimum capacity of 20 L. Add [part-B] while still mixing for minimum 1 to 2 minutes. Dispense gradually [part-C] and further mix for a total of 3 to 4 minutes until a homogenous mixture is achieved free of lumps.

#### **Application as stand-alone coating**

Apply the well mixed homogenous mixture over the dry and clean surface by using a 0.5 to 1mm notched rubber/steel trowel. Push the resin well into the surface, making sure that the coating fully wets the surface, to achieve required thickness of 500 up to 1000 microns DFT. The high build coat should be spiked with spike roller to release entrapped air in the material, in order to obtain a uniform, smooth, and even finish.

#### **Application over CIKOcem PUR screeds & coving**

Pour the well mixed homogenous mixture over the dry and clean surface. Spread the material using a 0.5mm to 1mm notched rubber/steel trowel to achieve the required thickness of 500 to 1000 microns DFT.

In order to achieve an anti-skid texture, broadcast CIKO ASG over the first coat of CIKOcem PUR-SC and allow drying for minimum 24 hours. Re-apply an encapsulation seal top coat in the same matter.

For maximum sealing and coverage the coving mortar CIKOcem PUR-C, apply two coats of CIKOcem PUR-SC at 500 DFT.

### **Maintenance**

The long term performance, appearance, and life expectancy of wear surface products are critically dependent upon a good routine maintenance program designed specifically for the installed wear surface. CIKO ME floor coating systems are nonporous, causing dirt and contaminants to remain on the surface. The use of properly placed walk-off mats or sealer coats, inside and outside, will help increase the life of the floor. Recommend maintenance program consist of frequent and thorough cleaning utilizing a neutral pH cleaner.

Frequency of washing will vary depending on floor usage type, traffic and age. CIKO ME Floor Maintenance Guide available upon customer's request.

#### **Curing**

Protect the applied material for at least 24 hours from light foot traffic, high moisture and water flow.

#### **Cleaning**

Used tools must be well cleaned with CIKOsol or CIKOsolvent 20 directly after usage.

### **Recommendations**

Mock-ups and field test areas are required in order to validate performance and appearance related characteristics to ensure system performance as specified for the intended use, and to determine approval of the coating system including but not limited:

- Colour
- Inherent surface variations
- Wear and abrasion resistance
- Chemical resistance and stain resistance

Job site variability must be confirmed and assured including but not limited to:

- Surface preparation
- Sunlight & exposure
- Relative humidity
- Dew point temperature
- Ambient and substrate temperature

During application of CIKOcem PUR-SC products may lead to fisheyes, blistering, pinholes, wrinkling, or outgassing of air in the concrete and are not product defects. Priming, shading or evening application may be required. Refer to Precautions section for further details.

CIKOcem PUR-SC is recommended for professional use only.

## Packaging

CIKOcem PUR-SC is available in 5 kg/kit consisting of Parts A, B, C & D.

## Shelf life

CIKOcem PUR-SC has a shelf life of 12 months if stored in accordance with CIKO instructions.

## Storage

CIKOcem PUR-SC should be stored under cool and enclosed shaded area between 5°C and 30°C away from direct sunlight.

## Precautions

- At high ambient temperatures, the workability of the mixed material is reduced.
- Do not apply the material outdoor, subject to UV rays. It is recommended to apply a final aliphatic polyurethane based protective coating such as CIKOcoat UV333.
- For thicknesses higher than 3 mm consult CIKO technical service department
- Relative humidity shall not exceed 75%
- The ambient temperature is between 10 – 40°C.
- The substrate temperature is between 10 – 40°C and at least 3°C above dew point temperature.
- It is recommended to use a single batch of CIKOcem PUR-SC for a continuous application to ensure colour uniformity.

## Health & safety

Use standard dust mask to avoid inhalation of dust. Powder when wet or moist can cause burns to skin and eyes which should be protected during use. If comes in contact with skin/eyes, flush with plenty of fresh water and seek medical advice. Refer Material Safety Data Sheet for further details.

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## 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.



ص. ب رقم : ٢٩٥ ، الدوحة - قطر  
ت : +٩٧٤ ٤٤١١ ٤٧٩٤ ، ٤٤١١ ٤٧٩٠ ، ٤٤١١ ٤٧٨٧  
فاكس : +٩٧٤ ٤٤١١ ٤٧٩٢

P.O.Box : 295, Doha, Qatar

T: (+974) 4411 4787 / 4411 4790 / 4411 4794

F: (+974) 44114792

E-mail: enquiries@cikome.com