

CIKOshield 300

Smart Chemical Solutions



Elastomeric anti carbonation protective coating

Description

CIKOshield 300 is formulated with 100 % acrylic polymer, supplied as a one component, ready to use liquid, which cures to an elastomeric high- build coating. It is available in range of colours.

Properties

- Smooth decorative finish.
- Durable- resists frost, de-icing salts, CO₂ and UV light to exhibit extreme durability.
- High performance and CO₂ resistance properties for excellent protection performance
- Withstand substrate cracking up to 2mm and cyclic movement up to 1mm
- Water vapour permeable to allow the substrate to dry out
- Ready to use
- Environmental friendly does not contain solvents, safe to handle and use.

Application area

CIKOshield 300 to be used as top coat on concrete surface to:

- Bridges
- New and existing building
- Coastal environments
- External coating to storage tank

Physical properties

Form	Fluid paste
Color	Grey, light grey, white , other colors on request
Density kg/L	1.40
Solids % (Volume)	Min. 50%
Tensile strength N/mm2 (ASTM D 638)	1.55
Elongation ASTM D638	>300 %
Resistance to chloride ion penetration (BS 1881: Part 124)	@28 days >94 %
Chloride ion diffusion (Taywood)	3.63x10 ⁻¹⁰
Superficial drying at 25°C	Approx 30 minutes

Carbon dioxide diffusion resistance	Equivalent to air thickness 250 mm Concrete thickness (30N/mm ²) 550 mm
Water vapour transmission	>13 g/m ² .d
Heat Resistance	-5 to 80 °C
Aging resistance	Excellent
UV Resistance	Excellent
Chemical resistance	Excellent against rain, sea salt, diluted acids, sewage, alkalis and atmospheric agents
Application Temperature	5-45°C
Service temperature	-5 to 80°C
Crack Bridging ASTM C836	Passes
Adhesion BS1881	>1Mpa

Application instructions

Surface preparation

The surface should be free from dust and loose particles. Remove all traces of formwork, release agent, grease, efflorescence, laitance and other contaminant that may prevent proper adhesion. Remove organic material by scraping, brushing or high pressure water cleaning, and spores should be treated with a suitable fungicide-sterilizing agent and carefully rinsed.

CIKOfill AC can be used for filling small pinholes and for levelling minor irregularities. Windows glasses, grass, plants, joint sealants painted areas should be well protected during application.

Priming

On the clean dry surface apply CIKoprimer AC as primer by using brush or proper spray machine. For porous substrates use CIKoprime 300, a silane siloxane primer which penetrates deeply into the porous substrates and reacts to produce a bonded hydrophobic lining to pores. Apply the coating material immediately after the primer is dry to avoid contamination to the primed areas.

Mixing

CIKOshield 300 should be mixed thoroughly using a heavy duty slow speed drill-paddle assembly and ensure a homogeneous mix and uniform colour.

Application

The first coat can be diluted by up to 15% with clean water depending on the surface porosity. The second coat can be applied within 2 hours depending on the ambient temperature. Coating can be carried out using airless spray machine, brush, or roller. It is recommended to apply two coats of CIKOshield 300 at the stated rate of application.

Packaging/ Coverage

	CIKOshield 300	CIKOprimer AC	CIKOprime 300	CIKOfill AC
Packaging	20 litres pail	20 litres pail	5 & 20 litres pail	5, 10, 20kg bag
Coverage per package	100 m ²	200 m ²	8 to 10 m ² /L	1 to 1.8kg per m ²
WFT	200 microns	100 microns	N/A	1mm

Note: The coverage depends on the substrate condition, finish and pavers absorption. A test area is recommended before application to ensure proper appearance aesthetics, film bond and to find our approximately average coverage rate. Consult our technical service department for assistance.

Shelf Life

CIKOshield 300 has a shelf life of 12 months if stored in accordance with CIKO instructions.

Cleaning

CIKOprimer AC should be removed from tools using CIKOsol where clean water is used to remove CIKOshield 300 and CIKOfill AC from tools and equipment.

Health & Safety

CIKOshield 300 should not come in contact with eyes or to 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.

Storage

CIKOshield 300 should be stored under enclosed shaded area at temperatures between 5 and 35 °C.

Precautions

Prior to application, ensure that:

- CIKOshield 300 should not be used in submerged or wet substrate
- CIKOshield 300 should not be applied if rain is expected during application process
- Do not apply more than 0.3 mm thick coat in single pass.
- Good ventilation is essential when humidity is above 80% , substrate temperature should be 3°C above the dew point

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

