

# Cicocoat® Top 112

## Flexible Polymer Modified Cementitious Coating

### DESCRIPTION

**Cicocoat® Top 112** is a two component; flexible acrylic polymer modified cementitious waterproofing and decorative coating. Part A is a high quality specially composed powder and part B is an elastomeric acrylic polymer liquid. **Cicocoat® Top 112** is non toxic; so it's recommended to be used in potable water projects.

**Cicocoat® Top 112** is available in white and grey colors; special colors can be made on request.

**Cicocoat® Top 112** has high bonding strength with concrete, and as it is considered as cementitious waterproofing material, it has almost the same characteristics of concrete, that obtains durability.

**Cicocoat® Top 112** is available in two grades to obtain a variable surface finishing:

Thin grade (flowable) that is applicable for 500µ/coat by brush/roller/spray.

Textured grade (pasty) that is applicable for 1-2mm/coat by brush/roller/trowel.

To add rich glossy finish, apply one sealcoat of **Cico® Acryseal** over dry **Cicocoat® Top 112** layers.

- Obtains high durability for structures.
- Available in two grades
- Non Toxic.
- UV stable.
- Positive and reasonable negative waterproofing.
- Could be used as a decorative texture for exposed concrete structures like bridges.
- Minimizes carbonation and chloride attack on steel reinforcement.
- Easy to apply, by brush, trowel or roller.
- Minimizes chemical attack over concrete.
- Economic.
- Available in grey and white colors (other colors are available on request).
- No primer needed.
- High adhesion to concrete.

### PACKAGING

**Cicocoat® Top 112** is available in 30 kg set:

Thin grade: (10 kg liquid + 20 kg powder)

Textured grade: (8.5 kg liquid + 21.5 kg powder)

### USES

**Cicocoat® Top 112** is ideal to be used in:

- Aggressive weathering conditions external use.
- Drinking water reservoirs.
- Basements.
- Bridges.
- Architectural finishing.
- Coastal structures waterproofing.
- Swimming pools.
- Heavy rain and washing areas like balconies, terraces, and roofs waterproofing.
- Sea retaining walls.

### ADVANTAGES

- High crack bridging capability.

### SHELF & STORAGE

12 months shelf life when stored in its original bags under shaded area in a temperature within the range of 5°C to 45 °C

### TECHNICAL PROPERTIES

| Form                                  | Component   |                    |
|---------------------------------------|-------------|--------------------|
| A                                     | Powder      | Component B        |
|                                       | Liquid      |                    |
| Standard colors                       |             | White & Grey       |
| <b>Grade</b>                          | <b>Thin</b> | <b>Textured W.</b> |
| Density (ASTM D1475) kg/l @25°C       | 1.5±0.05    | 1.72±0.05          |
| Pot life (ASTM D2471) @25°C min       | 50±5        | 35±5               |
| Touch dry (ASTM D2471) min@ 25°C      | 45±3        | 40±3               |
| Over coating hours @25°C              | 6±15 min    |                    |
| Toxicity                              | Non toxic   |                    |
| Tensile St. (ASTM C307) N/mm²@28 days | 7.0±0.5     |                    |

|                                                |                                          |        |
|------------------------------------------------|------------------------------------------|--------|
| Flexural Strength (ASTM C580)                  | N/mm <sup>2</sup> @ 28 days              |        |
|                                                | 13.5±0.5                                 |        |
| Bonding Strength (ASTM C882) N/mm <sup>2</sup> | ≥1.5                                     |        |
| Permeability to water vapor (EN ISO 7783-1)    | 1.75μ/S <sub>d</sub> 3.6                 |        |
| Elongation @ 28 days (DIN 53504 mod)           | 150 %                                    | 120 %  |
| Crack-bridging EN 14891-A.8.2 (mm)             | 2.9                                      | 2.7    |
| Recommended No. of coats                       | 2                                        | 1 or 2 |
| Chloride ion diffusion coefficient             | 1.05X10 <sup>-7</sup> cm <sup>2</sup> /s |        |
| Carbonation resistance depth of (@28 days)     | penetration<br>1mm maximum               |        |
| Coverage m <sup>2</sup> /set                   | 40@500μ14.5@1200 μ                       |        |

## CHEMICAL RESISTANCE

The fully cured **Cicocoat® Top 112** is resistant to:

Salt water

Benzene and Kerosene

Chlorine and Hydrochloric acid (HCl) 10%

Lactic acid 20%

Sulphuric acid (H<sub>2</sub>SO<sub>4</sub>) 10%

Sodium hydroxide 40g/L

## APPLICATION INSTRUCTIONS

### Surface Preparation

Concrete and mortar surfaces must be sound, clean, and free from grease, oil, cement laitance and all other loosely adhering particles. All surfaces must be as true and flat as possible. The surface should be free from all treatment agents such as curing or release materials. A carefully prepared substrate is of most importance, especially in continuously immersed structures.

**Saturate all concrete surfaces thoroughly. The surface should be in saturated surface dry condition (SSD) prior to the application.**

### Mixing

Use a suitable slow speed drill (400 - 500 rpm) and a paddle for mixing.

The acrylic polymer should be poured into the mixing pail (not less than 20 liter volume) and then slowly add the powder to the liquid while mixing continuously for 2 minutes till a homogenous mixture consistency, free from lumps is achieved.

For spray application, consistency can be adjusted by adding more water. The produced material could be mixed again by hand tool during application to prevent from sedimentation.

**Do not mix more material, than the application team can apply within the pot life. Do not add more water after finishing mixing and during application under any circumstances.**

## Application

Saturate the concrete surface by water thoroughly before using **Cicocoat® Top 112**.

For the thin grade, use a brush, roller or a sprayer for application. While for textured grade, it could be applied by a trowel along with a brush and roller, but it couldn't sprayed. Minimum DFT of 1mm thickness is recommended for both grades to have the best waterproofing efficiency, but thickness could be increased as required.

For thin grade, apply minimum two coats at right angles waiting for not less than 6 hours in between them; while textured grade could be applied in one go for 2 mm thickness.

## CLEANING

Clean tools freshly contaminated with **Cicocoat® Top 112** using water. Hardened material can be removed by hand tools or light mechanical means.

## PRECAUTIONS

### Health and Safety

**Cicocoat® Top 112** is an alkaline, non-hazardous. It should not be swallowed or allowed to come into contact with skin or eyes. Suitable protective goggles and gloves should be worn. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. When contact with the skin is made, wash off immediately with soap and water. If swallowed, seek medical attention immediately, do not induce vomiting.

**CIC** products and guidance on their use are available on request.

## TECHNICAL SUPPORT

**CIC** provides on-site assistance, as well as consulting services on projects when requested. Technical data sheets on other

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