

# CAP-HYDROSEAL

ACRYLIC MODIFIED FLEXIBLE CEMENTITIOUS

## DESCRIPTION

**CAP-HYDROSEAL** is a cementitious, polymer modified, surface coating composed of two component.

- A. Powder – A blend of special cement, silica sand and auxiliary chemicals.
- B. Liquid – Modified acrylic dispersion with wetting agents.

It is applied by slurry brush, in two or more coats to the surface that will be in contact with water. During membrane built up, a mesh glass fabric is embedded in between the coats to provide extra strength to the coating and to enable gaps and angles to be bridged and coated effectively.

## FEATURES

The cementitious dry mortar powder and the polymer dispersion are balanced, so that mixing of two components results in a brushable compound.

After application, the bulk of the water evaporates and the polymer forms a tough rubbery film which bridges over fine cracks and water proofs the concrete without impeding water diffusion. Owing to the presence of dispersed polymer, the fresh concrete treated with **CAP-HYDROSEAL** no longer carbonates and the chloride penetration is considerably suppressed. **CAP-HYDROSEAL** is non-toxic and does not contain chlorides, or any other salts which could cause efflorescence.

## COLOR

Grey.

## USES

- As a water proof lining for water retaining structures like storage tank, swimming pool etc.
- For coating sea water channels, ie. canals, culverts, sewers etc.
- Protection of concrete against carbonation and chloride ion attack.
- Water proofing of new and existing buildings.

- To provide protection to foundations and basements.
- As a water proof coat to roofs.
- For tile adhesion in water retaining structure.

## ADVANTAGES

- Water proofing.
- Creates a flexible membrane.
- Breathable.
- Resistant to abrasion.
- Excellent adhesion.
- Resistant to frost and de-icing salts.
- High resistance to carbon dioxide and chloride ion diffusion.
- Ease of placement on horizontal, vertical and overhead surfaces.
- Efficient to arrest carbonation.

## TYPICAL PROPERTIES

### Plastic density (A+B):

1900 kg/m<sup>3</sup>.

### Working time:

Approx. 30 minutes at 25°C.

### Tensile strength:

>380 kg/cm (3mm thick, reinforced membrane);  
ASTM D-412.

### Weight loss:

Max. 20%; ASTM C-836.

### Non-volatile content:

Min. 80%; ASTM C-836.

### Adhesion in peel:

>175 N/m; ASTM C-836.

### Service temperature:

-55 to +100°C.

### Fire rating:

Non-combustible.

### Toxicity:

Non-toxic.

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## APPLICATION INSTRUCTIONS

### Surface preparation:

The surface must be level, free of dust, oil and grease. Remove laitance, contamination and loose particles. For substrate preparation, use of high pressure water jets and sand blasting equipment are recommended. Any sharp edges and ridges should be rounded off to attain a flawless coat of uniform thickness. The concrete must be adequately wetted to avoid rapid water loss from fresh slurry or the concrete surface must be primed with an acrylic primer to reduce suction by the substrate to avoid plastic cracking and pin holes.

### Mixing:

- CAP-HYDROSEAL is supplied in precisely proportioned units ready for mixing (pre-conditioned material at 25°C).
- Pour liquid component in a clean mixing container.
- Add powder component gradually while stirring slowly with a ¾" drill and mixing paddle.
- Mix to uniform consistency. Overmixing may entrap air.
- Mix for 3 to 5 minutes after addition of all components.
- The pot life of CAP-HYDROSEAL is approximately 20 to 30 minutes depending on ambient conditions.

### Application:

- Thoroughly work the material either by brush or trowel into the substrate, make sure the rounded edges are fully coated. Do not apply coats thicker than 1.5 mm.
- While the coat is still wet, embed fiberglass mesh into the coat. Use the trowel to work the material up and through the mesh until it is completely embedded.
- Allow an overlapping of 50 to 100mm wide on each side as well as over upstands.
- Apply the second or subsequent coat of 1.5mm thick after the previous coat has dried. The second coat should not cause the first coat to displace.
- Smooth over by flat edge, creating a smooth voidless membrane.

### Drying time:

Prevent premature drying, protect from extreme heat, direct sunlight, wind, rain and frost for at least 24 hours. Allow to cure for minimum 7 days.

(Curing time varies with humidity, temperature and substrate porosity).

Once cured, surface should be flushed with several changes of water before water pond testing.

### Finishing:

All CAP-HYDROSEAL treatment that may be subject to mechanical damage must be protected by a concrete, cement, tile or other protective screed.

### Cleaning:

The tools should be cleaned with water before CAP-HYDROSEAL hardens. Cured material can be removed mechanically.

## COVERAGE

A kit of CAP-HYDROSEAL will cover approximately 10 m<sup>2</sup> at 1 mm thickness.

## PACKAGING

CAP-HYDROSEAL is supplied in 20kg kit that includes part A and B.

## STORAGE

CAP-HYDROSEAL should be stored over pallets in a cool dry place. Shelf life will be 12 months in unopened bags.

## SAFETY PRECAUTIONS

CAP-HYDROSEAL does not contain toxic materials. Care should be taken to avoid inhalation of dust and to prevent material entering into eyes

### TECHNICAL SERVICE:

Our Technical Service Department is available at any time to advise you in the correct use of this product or any other Ahlia products.

**Note :** The information presented herein is 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.

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