



Quality beyond Innovation

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# HYDROPROOF WPC

## Waterproofing by Crystallization

### DESCRIPTION

**HydroProof WPC** is a cementitious material waterproofing system by crystallization. The active chemicals in the applied **HydroProof WPC** reacts with the free lime and moisture present in the capillary track of the concrete to form insoluble crystals. These crystals block the capillaries and minor shrinkage cracks in the concrete to prevent any further water ingress.

The reaction generates a non-fibrous crystalline growth in the pores that seals the concrete against water penetration.

### USES

**HydroProof WPC** can be used for various concrete elements in Structures Such as marine and coastal structures, rafts, precast panels, water storage tanks, highways, runways, decks, bridges, cut and cover tunnels, silos, car parks slab, swimming pools, lift pits, pipes, basement retaining walls and slab, etc.

### ADVANTAGES

- Become an integral part of concrete
- Non-toxic, suitable for use in potable water tanks
- Can be applied on the negative or positive side of water retaining or underground structures
- Chemical remain dormant and are reactivated whenever there is a presence of moisture
- Does not require surface primer prior to application
- Time saving, fast tracks projects
- Easy to apply
- can be applied to freshly laid green concrete by dry shake method
- Excellent for damp proofing basements
- Exhibits crack bridging and self-healing property
- Easy to apply

### SURFACE PREPARATION

Surface should be clean, free of dust, loose particles, greases, oil, primers from previous membrane system or bitumen. Bitumen or primers should be removed by shot blasting or mechanical means. The surfaces must also have an open capillary system for the **HydroProof WPC** treatment. If surface are too smooth the concrete should be acid etched. Structural defects such as cracks, faulty construction joints and honeycombs should be routed out to sound concrete and repaired. **HydroProof WPC** is not designed for use in expansion joints or moving cracks.



### TYPICAL PROPERTIES at 25°C

PROPERTY	TEST METHOD	VALUE
Component	–	Single component Form Powder
Colour	–	Grey
Mixed Density	BSEN 12350-6	2.00 kg/ltr +/- 0.05
Toxicity	BS 6920-1	Non-toxic
Drying time	-	60mins
Recoat time	-	3-4 hrs
Water permeability	BS 12390-8	>90% improvement over control
Chemical resistance of mortar	ASTM C267	Excellent
Crack bridge ability	ASTM C836	No crack at 1.40mmwidth

### MIXING

Mix one bag of 25kg with 5-7 ltrs of clean water. Always add powder to water, mix using a slow speed drill fitted with a paddle until a smooth and lump free consistency is obtained. Do not rework stiff materials by adding more water. Only mix sufficient quantity of material that can be used within 30 minutes

### APPLICATION

Saturate the concrete surface with clean water. Apply the first coat of **HydroProof WPC** while the surface is still damp with no free standing water. Apply using a short stiff bristle brush or roller at minimum thickness of 0.5 mm per coat. After 2-6 hours, apply the second coat in perpendicular direction to the first coat.

## **PACK SIZE**

25 kg bag

## **YIELD**

11 ltr/25kg bag

## **COVERAGE**

11.0 m2 per bag at 1mm thickness in two coats, Actual coverage depends on porosity and texture of the surface

## **CURING**

Applied **HydroProof WPC** should be protected against evaporation by wind and sun. Spraying of clean water should be undertaken to keep the surface damp. Alternatively the surface can be covered with, wet hessian or wet sand. Any based of curing compound is not recommended. Moisture cures the applied **HydroProof WPC** 3-4 times per day for a period of 10-12 days.

## **GENERAL INFORMATION**

Shelf Life 12 months from date of manufacture when stored under warehouse conditions in original unopened packing. Extreme temperature/humidity may reduce shelf life.

## **CLEANING**

Clean all equipment and tools with water immediately after use.

## **HEALTH and SAFETY**

Gloves, goggles & suitable mask must be worn.

## **PRECAUTIONS**

Contact with skin, eyes, etc. must be avoided. If swallowed seek medical attention immediately.

## **DISPOSAL**

Do not reuse containers. To be disposed off as per local rules and regulations.

## **TECHNICAL SERVICE**

**Philippine SkyBird Industrial Corp.** Services are available on request for on-site support to assist in the correct use of its products.