# AQUAPROOF PU B1

SINGLE COMPONENT POLYURATHANE BITUMINOUS WATERPROOFING COATING

## Description

Aquaproof PU B1 is a liquid applied, moisture cured, high tensile polyurethane modified, solvent based elastomeric membrane coating. Aquaproof PU B1 when applied on a surface, gives a continuous monolithic film which is rubbery and elastic in nature. The film cures by reaction with atmospheric moisture to give a tough elastomeric waterproof membrane. Aquaproof PU B1 conforms to the requirements of ASTM C-836 and ASTM C-898.

## Uses

- Seamless, impervious coating for application on roofs and concrete structures
- Protective coating in infrastructure projects in civil engineering on non-trafficked areas
- Used to waterproof variety of substrates concrete, brickwork, asphalt, corrugated asbestos sheets, etc.
- Used for inverted roof structures
- Used for podium waterproofing as a part of built up system
- Can be applied on retaining walls before backfill
  Important: Not suitable for permanent water immersion or water-retaining structures such as RC tanks, swimming pools, water features, etc.

## Advantages

- Excellent crack bridging properties
- Elastomeric membrane that cures with aerial moisture to a flexible and rubbery coating
- Single component, ready to use
- Easy application by brush, airless spray or roller
- Economical
- Root resistant as a part of built up system
- Abrasion resistant
- Hydrolysis resistant
- Resistant to mild acid and chemicals and industrial environment
- Weathering and UV resistant
- Low VOC and eco-friendly

## Coverage

Aquaproof PU B1: 1.5-1.7 kg/Sqm on a smooth surface will provide an adequate film thickness of 1.2 mm with Coverage rates may vary with surface texture and porosity.

## Technical Data

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| Product Composition | Bituminous Polyurethane |
| Density | 1.20- 1.22 gm/cc |
| Abel Closed Cup Flush Point | 56ºC |
| Non volatile Content (ASTM D 2369) | > 90% |
| Adhesion to primed concrete (Pull of strength), MPa | > 2.0 N/mm 2 |
| Approximate drying time (tack free) | > 8-12 hours per coat |
| Approximate curing time (full cure) | 36-48 hours |
| Elongation | > 800% |
| Tensile strength (with reinforcement) | >4 MPa |
| Tensile strength(without reinforcement) | >2.5 MPa |
| Recovery at 500% elongation (%) | 90 +/- 2 |
| Hardness, Shore A (After 7 days) | >45 |
| VOC Content (gms/kg) | 110 +/- 2 |
| Service Temperature | -40˚C to +80˚C or even more |
| Extension after heat ageing, mm | >6.4 with no cracks |
| Water permeability @5 bar water head pressure | Nil |
| Tear resistance, N/mm | >15 |
| Water Vapour Transmission (1.0 mm thick), g/m2/hr | >0.60 |

## Application Instruction

**Surface Preparation:**
Clean the surface thoroughly with wire brush, remove all dust, dirt, foreign Particles, fungi, etc.
Allow surface to be completely dry. Do not apply Aquaproof PU B1 on damp surface.
All the cracks/voids shall be sealed with Cemcoat AR mixed with cement and sand.
Provide fillet 75 mm x 75 mm coving made out of PMC mortar as above, using Cembond Latex Plus as bond coat.

**Material Preparation:**

- Skin formation may happen on the top of material during humid condition. In that event, cut skin from the periphery of the container and remove it.
- Stir Aquaproof PU B1 by a slow speed mixture fitted with a suitable mixing paddle to ensure a homogenous mix.
- Allow the entrapped air to escape.
- Consume within 4 hours of opening the container.

**Material Application:**
Apply Aquaproof PU Primer S on the entire surface to be treated. Alternatively, dilute Aquaproof PU B1 in the ratio of 1:1 with either Xylene or Toluene. Allow the primer to dry.
Apply Aquaproof PU B1 by brush or spray @ 500gms to 1kg/sqm on the entire surface and up to 300 mm high on parapet wall. Allow it to dry.
Apply second coat of Aquaproof PU B1 @ 500gms to 1kg/sqm to achieve total dry film thickness of 1.5mm.
Reinforcement with FCSC Fibermesh 45 may be provided between the layers for improved tensile strength.
Extend water proofing treatment upto 300 mm and terminate into groove on the parapet wall. Fill the groove with Polymer modified mortar.
Minimum 25mm thick wearing course of M15 grade reinforced with chicken wire mesh should be done within 7 days of curing as the coating is not UV resistant.
Grooves of 6mm x 6mm must be cut on the wearing course in panels of 1.2m x 1.2m and filled with Polyseal P sealant

## Packaging

Available in 25 kg HDPE packaging.

## Storage & Shelf-life

Shelf life is 12 months, store in unopened containers in clear, dry conditions at 4 to 27°C.
During storage, an easily removed skin of Aquaproof PU B1 may form, which does not affect the performance of the product.
For specific storage advices please consult FCSC Technical Services Department.

## Safety Precautions

**AQUAPROOF PU B1** is non-toxic but ingestion is to be avoided. Any splashes to the skin must be washed with water. If contact with eyes occurs, wash well immediately with water and seek medical advice



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