

ELASTOMERIC SINGLE COMPONENT POLYURATHANE WATERPROOFING COATING

Description

AQUAPROOF PU W1 is a single component; high performance PU based cold applied elastomeric waterproofing membrane. AQUAPROOF PU W1 exhibits high elasticity, excellent bond and low water permeability and makes it ideal for a wide range of waterproofing applications. The cured membrane forms an elastic, seamless, waterproof coating with good crack-bridging properties..

Uses

- Waterproofing of podiums, suspended floors, planter boxes, terraces
- Waterproofing of underground structures such a foundations, retaining walls of basements, tunnels, water retaining structures (not potable water), effluent treatment tanks
- Waterproofing of car decks, bridges and inverted roofs.

Advantages

- Non Toxic: eco friendly coating
- Seamless cold-applied membrane: eliminates lapping, seaming, and pre-cutting
- Highly flexible: can accommodate movements and vibrations
- Root Resistant
- Outstanding barrier properties: ensures protection against corrosive soil conditions
- Thermally stable: irreversible chemical cure, eliminates melting and flow at high temperature
- Excellent adhesion to concrete substrates
- Excellent resistance to oxidation
- Good chemical resistance to most weak acids and alkali, water borne salts and sea water

Consumption

| | |
|-------------------------------------------|-------------------------------------------|
| Appearance | Viscous becomes black after drying |
| Viscosity | max. 75 Poise |
| Drying Time | 45 - 50 mins depending upon temp/humidity |
| Specific gravity(IS101/1964) | 1.25 ± 0.05 |
| Solid Content(IS101/1964) | Approx 60 % |
| Elongation ASTM D412 | > 350 % |
| Crack bridging | 2 mm |
| Tensile strength ASTM D142 | 1 to 1.5 N/mm ² |
| Water vapour transmission for 1.33mm film | 9.7 g/m /24 hrs |

| | |
|--------------------------------------------|----------------------|
| Water Absorption | Nil at 1mm thickness |
| Permeability ASTM E 96 | Passes test |
| Recovery after 100 % elongation ASTM D 412 | > 92% |
| Shore A hardness ASTM D 2240 | > 50 |
| Flash Point | 45° C to 60° C |
| Service Temperature | -10° C to +45° C |

Coverage Estimation

Coverage:

approx. 10m² @ 1mm DFT.

| Application | Consumption per coat | WFT per coat | DFT per coat | No of coats to be applied |
|-------------|----------------------|--------------|--------------|---------------------------|
| Floor | 1kg / smtr | 0.625 mm | 0.5 mm | 2 coats |
| Wall | 0.66 kgs/smtr | 0.412 mm | 0.33 mm | 3 coats |

Application Method

Surface Preparation

The surface to be treated must be dry, clean, structurally sound, free from oil, grease, wax, polish, laitance, dust and other barrier materials.

Crack treatment

All shrinkage and visible surface cracks should be pre treated with CEMCOAT AR + Cement (acrylic crack filler paste) extending 25mm on either side of the crack. Allow to cure overnight before application of AQUAPROOF PU W1.

Priming

Priming is not normally required on good quality concrete substrates. However, absorbent surfaces such as porous concrete, sand/cement screeds and cement boards will require sealing of the surface. Prime the surface using a 1:1 mixture of AQUAPROOF PU W1 & water (1 litre of AQUAPROOF PU W1 mixed with 1 litre of water covers 20 sqm area).

Application

The entire contents of the AQUAPROOF PU W1 should be stirred before starting the application. Pre-treat all turnings, construction joints and pipe cut-outs with 2 coats of AQUAPROOF PU W1 reinforced with a layer of 50 gsm geo textile membrane with 50mm overlap in both directions. Using a roller or brush, apply a coat of AQUAPROOF PU W1 on the prepared substrate. Allow the layer to dry before applying the second coat of AQUAPROOF PU W1. The second coat should be applied perpendicular to the direction of application of the first layer.

Packaging

10 kg and 20 kg bucket

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Curing

AQUAPROOF PU W1 must be cured for a minimum of 24 hours before placing protection. Where damage to the membrane is possible (by traffic, backfilling, etc.) it should be protected by a cementitious screed or protection boards. A dust coat of cement should be used to prevent adhesion of the membrane to the boards. Where a bond with the topping is not required, a separator sheet should be used.

Cleaning

AQUAPROOF PU W1 can be removed from tools and equipment by using Xylene immediately after use. Any hardened material will need to be removed mechanically.

Storage and Shelf life

AQUAPROOF PU W1 has a shelf life of 12 months if kept in a dry, clean store between 5°C and 30°C in the original unopened containers. The product should be protected from frost, away from direct sunlight and sources of heat.

Disposal/Spillage

Spillage of the product should be absorbed onto sand or other inert materials and transferred to a suitable disposable vessel.

Disposal of such spillage or empty packaging should be in accordance with local waste disposal authority regulations. For further information please refer to the Material Safety Data Sheet.

Safety Precautions

During mixing and application the following precautions should be observed: Ensure adequate ventilation and avoid contact of the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and by using, if necessary, a suitable barrier cream. In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water.

Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to resin-based materials. Always wear gloves and eye/face protection as necessary.

Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

Disclaimer

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.