Waterproofing Systems

AquaArm SPU (Grey)

Single component moisture cured Polyurethane Elastomeric Waterproofing coating



Product Description

AquaArm SPU is a single component polyurethane liquid applied waterproofing membrane. It forms seamless monolithic membrane that adheres well to most of the common substrates in construction e.g. Concrete, Cement blocks, existing roof felts etc.

AquaArm SPU is resistant to Chlorides and sulphates present in the soil and to most mild acids and alkalis. It conforms to ASTM C-836 and ASTM C-898

Uses

- Balconies, Facades & Planters
- Plywood
- Exterior below grade (on masornry, concrete and incidental metal)
- Foundation, below grade slabs & retaining wall
- Concrete tanks, Swimming pools, Fountains
- Walls and culverts
- Sea walls, dams and reservoirs
- Repair/refurbishing of old water proofing system i.e., Tar-felt/APP Membrane applied areas

Features and Benefits

- Single component, cold applied, ready to use
- Highly elastomeric to accommodate expansion and contraction
- Root resistant
- Cured membrane can sustain properties even at high temperature
- Easy to use and environment friendly
- Resistance to oxidation
- Seamless as it is cold and liquid applied and no overlap
- Wide service temperature range, suitable for all climates

Application Methodology

Step no.1: Surface Preparation

Clean and remove all loose dirt / gravel, oil etc by jet of dry air or clean the surface mechanically or by grinding to make it smooth before application. Repair all cracks by cutting "V" groove using suitable polymer modified mortar.

Coving – provide 75mm x 75mm concave using suitable polymer modified mortar.

Step no.2: Primer Application

Apply FloArm Primer PUDC on dry concrete surface (ensure moisture level does not exceed 5%) by the help of brush or airless spray.

Recommended *Coverage 200 - 400 gms / $m^2 - single$ coat application with approx. DFT 50 microns, touch dry surface dry in approx. 30 min at 27^{0} C, Relative humidity 50%. (*dosage depending upon surface condition at porous surface dosage may increase).

Step no.3: Waterproofing Application: AquaArm SPU Apply 1st coat of AquaArm SPU on touch dry primed surface with the help of brush/roller/airless spray and leave it for drying for approx.10-12 hrs. For larger areas air spray application is recommended.

Apply 2nd coat by similar application method in perpendicular direction to 1st coat and leave it to dry for approx. 36 hrs before proceeding to the next stage.

Recommended dosage: 1.40 Kg/Sqm in 2 coats.

Pond testing is to be done after 7 days of full curing of 2 coats of application.

Protection: Geotextile membrane to be laid on fully cured membrane before laying of protection screed.

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Note:

For vertical applications, extend upto 300mm and terminate into groove as per standard procedures for termination of waterproofing membrane systems. Sprinkle quartz sand @ 200 gm/m2 while second coat of AquaArm SPU is still tacky for providing mechanical grip to facilitate installation of plaster.

To achieve higher mechanical properties for waterproofing Spread non woven geotextile mesh 50 GSM with 50mm overlaps in each direction after application of 1st coat of AquaArm SPU, whist tacky.

Step no.4: Protection with Screed

Prior to laying of protection screed, use a separation barrier of 160 gsm Geo Textile. > 50 mm Screed to be applied as per slope requirement. For vertical application 15-20 mm plaster is recommended.

For protection during backfill and where hydrostatic pressure is expected such as retaining wall application, use the appropriate drain board system i.e EPS Board or dimple sheet

Limitation:

Since this product is an aromatic nature by chemistry. Hence it is not UV Resistance.

A colour variation of 10 to 15 % is expected over time. However, this does not change the performance of the product.

Technical Data

Property Technical details Appearance Viscous liquid Colour available Grey Density @ 27°C 1.25 ± 0.1 Solid content, % (ASTM 836) Min 85% Tack free time @ 25°C 3 - 12 hrs Time to full cure @ 25°C 42 hours @ 1 mm thickness Typical cured membrane properties (@ 28 days) Elongation (ASTM D412) >650% Tensile strength, N/mm² (ASTM D 412) 92% Recovery from 200% elongation (ASTM D 412) 92% 100% Modulus Elongation (ASTM D 412) 2.5 N Shore Hardness A (ASTM D 2240(15") >50 Crack Bridging (ASTM C 836) Up to 2 mm Extensibility after heat ageing (ASTM C 836) >6mm Weight Loss (ASTM C 836) 15 ± 2% Service Temperature -40°C to 75°C Peel adhesion to primed concrete, Pull strength MPa (ASTM D 4541) ≥ 2.0 (concrete failure) Recommended Application Temperature 15°C to 30°C Water absorption % 0.20 %		
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Temperature 15 C to 30 C	Pull strength MPa	≥ 2.0 (concrete failure)
Water absorption % 0.20 %		15°C to 30°C
•	Water absorption %	0.20 %

Coverage

Coverage 1.50 kg / m² for 1mm DFT depending on surface conditions at site.



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Packaging

AquaArm SPU Grey: 25 Kg

Storage and Shelf Life

12 Months from Mfg. when stored cool and dry in the original sealed packaging. Use opened Packaging immediately.

Store in accordance with regulations for storing materials damaging to water courses.

Health & Safety

Use PPE such as coveralls, goggles and respiratory mask. If spilled into eyes, wash with plenty of water immediately and if irritation persists, seek medical treatment.

Non-flammable material:

Keep away from children. The application of material should be under good ventilation. Avoid inhalation of the vapours. Always wear protective clothing, goggles, vinyl gloves, and vapour mask.

Do not take internally, may be fatal if swallowed. First aid: Eyes – flush with water and seek medical attention immediately. Do not use any solvents. Ingestions – give several glasses of water or milk and seek medical attention immediately. Contact with skin – wash affected area immediately. Inhalation – move to fresh air.

Product Categories Available



Legal Note

The information, and, in particular, the recommendations relating to the application and end-use of MYK Arment products, are given in good faith based on MYK Arment current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with MYK Arment's recommendations. In practice, the difference in materials, substrates and actual site conditions are such that no warranty in respect of merchant ability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application & purpose. MYK Arment reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request.

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