AquaArm WPU Ultra

(Formerly known as MYK COAT WPU1K(E))

Single Component Polyurethane
Waterproof Coating

MYK arment®

TECHNICAL DATA SHEET

Product Description

AquaArm WPU Ultra is a single-component, liquid applied, elastomeric polyurethane coating for waterproofing of concrete surfaces. AquaArm WPU Ultra provides excellent resistance to moisture, water, and salts penetration into concrete and masonry surfaces. It conforms to ASTM C-836.

Uses

AquaArm WPU Ultra is used to protect and prevent water leakage and penetration of moisture into the Concrete and other masonry surfaces. AquaArm WPU Ultra is ideal for:

- Waterproofing of Podiums, Sunken Slabs, Terraces
- AquaArm WPU Ultra has the ability to uniformly and completely cover the surface, forming a continuous membrane

Features and Benefits

- Liquid applied membrane, can be applied with roller, brush or spray
- Non-toxic, Provides a seamless coating
- Flexible, has crack bridging ability
- High bond strength to a variety of substrates and building materials
- Resists positive water pressure
- Resistant to chemicals
- Excellent resistance to humidity and temperature
- Excellent resistance to Chlorides and Alkalies
- Very high tensile strength
- Root resistant

Application Methodology

Step no 1: Surface Preparation:

Surface need to be cleaned by wire brushing followed by vacuum cleaning so that surface is free of any loose particles, dust, laitance, mould release agents and curing compounds. Water jetting is not recommended.
All cracks to be treated with Rearm SBR modified mortar. Surface is allowed to self cure for 24 hours. Ensure the moisture content of the surface is below 5% before Priming.

Step no. 2:
Fillet preparation
Horizontal and vertical angle joints need to be prepared with 50x50mm concave fillet using concrete admixed with AquaArm Proof WP10 @ 150 g/50 Kg bag of cement. Fillet should be cured to gain strength and completely dry before Primer application.

Pipe penetration sealing
Clean around Pipe penetrations and seal the junction with low viscous solvent free epoxy ArmGrout Epoxy IG admixed with Silica sand.

Alternate to the above conventional methods, AquaArm Aso Joint Tape system can be opted for Fillet and Pipe penetration sealings. For details, please contact MYK Arment technical team.

Step no 3: Priming:

Epoxy based AquaArm Ultra Primer a two component primer is recommended before application of AquaArm WPU Ultra. Mix both the components of Primer and apply by brush on cleaned concrete. Pot life of the mixed primer is only 30 minutes. Allow the primer to dry for 4-5 hours.

Apply the water proofing coating AquaArm WPU Ultra when the Primer is tacky. If the Primer fully dries, repriming need to be done.

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Step no 4: Product Application

Prior to application, thoroughly mix the contents of the container using a slow speed stirrer at 300 rpm. Care should be taken to scrape the sides and bottom of the container with the mixer. Do not add solvent, thinners, water at any time.

After mixing, immediately apply AquaArm WPU Ultra over the tacky primer while ensuring a continuous coating of uniform thickness. A Lambs wool roller is recommended for such application. A brush may be used for touch-up and edging work or for areas unsuitable for roller application.

AquaArm WPU Ultra must be applied all along the angle fillets, corners, joints around the pipes, conduits etc. Apply AquaArm WPU Ultra on surrounding walls up to a height of minimum 300 mm from FFL. Always apply in two coats in order to avoid pinholes. The second coat can be applied after the first coat has dried (12 - 16 hours @ 25^{0}C) depending on the ambient and surface temperature.

To ensure mechanical bonding for protection plaster, granded sand should be sprinkled while coating is tacky.

Step no.5: 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

Technical Data

Property	AquaArm WPU Ultra
Density @ 27^{0}C	1.35
Solid content, %	65%
Colour of dry film	White
Tack free time @ 27^{0}C	12 – 16 hrs
Time to full cure @ 27^{0}C	72 hrs @ 1.2 mm thickness
Typical cured membrane properties (@ 28 days) @ 30^{0}C	
Elongation (ASTM D412)	450%
Tensile strength, N/mm2 (ASTM D 412)	1.4
Recovery from 200% elongation (ASTM D 412)	>80%
100% Modulus Elongation (ASTM D 412)	0.6 MPa
Shore Hardness (ASTM C 836)	80
Low Temp Crack Bridging (ASTM C 836-03)	No signs Upto 1.5 mm
Extensibility after heat ageing (ASTM C 836)	No cracks
Weight Loss (Max 20%) (ASTM C 836)	15- 17 %
Tear Resistance (ASTM D 624)	10 N
Peel adhesion to primed concrete surface (ASTM c 836)	≥ 1.5 MPa
Application Temperature:	Min: +5°C, Max: +42°C
Service Temperature	Min: -10°C, Max: +45°C

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Coverage

2 Kg/m^2 for 1mm DFT.

Recommended minimum DFT is 1 mm.
For more details please contact MYKA Technical team.

Packaging

25 kg pails

Storage and Shelf Life

Store in unopened containers in clear, dry conditions at 4 to 27°C.
6 months from date of manufacturing.
During storage, an easily removed skin of AquaArm WPU Ultra may form, which does not affect the performance of the product.

Limitations

- Never apply to new concrete surfaces before they have been allowed to cure for a minimum of 28 days.
- Do not apply if the temperature is in excess of 40°C or less than 5°C.
- Do not apply on wet or damp surfaces.
- Do not apply if rain is expected in the proceeding 24 hours.

Product Categories Available

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.

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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