

# AquaArm Kool Roof

(Formerly known as MYK Ultra-Shield)

High thermal Reflectance & Emittance coating



## TECHNICAL DATA SHEET

### Product Description

AquaArm Kool Roof is a single component, water based high thermal reflectance & emittance coating. It has the ability to reflect the visible, infrared and ultraviolet wavelengths of the sun, thereby reducing heat transfer to the building / structure, which significantly lowers the surface temperature of your roof and structural exteriors.

#### Uses

AquaArm Kool Roof is thermal reflective and emittance coating for building and structure.

Application areas include:

- Certified green building,
- Commercial and residential Buildings,
- Industrial sheds and go downs,
- Concrete and Metal storage tank,
- Cold Storages and Warehouses

#### Features and Benefits

- Single component
- Ready to use
- Nontoxic, High emissivity
- Green building compliant
- Washable

### Application Methodology

#### Step no 1: Surface Preparation

Correct substrate preparation is critical for optimum performance. Surfaces should be clean, and free from loose particles, curing membrane or any other contaminant. Grease, oil, mould release agent, loose and flaking paint, rust, algae, fungus or any other material which may impair adhesion must be removed by mild detergent, thoroughly scrubbing with a soft brush, and then clean with water. If the wall surface is damp or water is seeping, it is necessary to treat the leakage before coating. For advice on the treatment, please contact MYK Arment technical team. It is important to note that the final finish obtained is entirely dependent on the surface finish of the substrate. For a superior finish, fill the substrate surface irregularities such as blowholes, honeycombs, and unevenness etc. Cleaned area to be washed with water and the concrete surface should be moist (Slightly wet) and clean before application of first coat.

#### Step no 2: Priming

AquaArm KoolRoof primer is recommended prior to application of AquaArm KoolRoof coating. Recommended dosage approx. 100- 150 g/m<sup>2</sup> for metal Substrate & approx. 200 g/m<sup>2</sup> for concrete substrate depending upon porosity of the surface.

#### Step no 2: Product Mixing

Stir the contents of the container using a Stirrer to homogenize the coating material.

#### Step no 3: Product Application

Apply AquaArm Kool Roof by a roofing brush or with medium nap lamb's wool roller on the cleaned and washed surface. The second coat to be applied after a gap of min. 6 hrs. To ensure optimum performance apply the second coat at right angles to the first coat. Ensure that the coated area does not come in contact with water for a minimum 8 hours. After completion of full coating, 48hours are the (self) curing period for this painted surface. Do not apply the first coat onto freshly placed concrete or mortar until its moisture content falls below 8%.

#### Note: Over coating Substrate suitability

For coating on the previously painted concrete/plaster surface, please conduct a trial to check the system suitability with AquaArm Kool Roof by applying over painted surface in a small area. Check for the bonding/finishing of the material with the substrate before going ahead. If the bonding is not good, then contact MYK Arment technical team for further advice.

#### For Metal Surface

For application over GI sheet metal, Primer (AquaArm Kool Roof primer) is recommended before application of AquaArm Kool Roof.

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### Curing

AquaArm Kool Roof is self-curing. Curing time depends upon the ambient temperature & humidity, the moisture content of the substrate, thickness of film, etc. High temperature and low humidity accelerates the curing process.

### Technical Data

Physical appearance	White colour
Density	1.11 ± 0.1 kg/liter
Water Absorption	Nil
Impact resistance	Very good
No. of coat	2 coats
Dry film thickness	125 microns
Dry to touch @ 30°C	30 minutes
Recoating time @ 30°C	6 hours
Full curing time @ 30°C	48 hrs.
Curing Mechanism	By Air – evaporation, Coalescence
Service Temp	Min. 4°C, Max. 45°C (After curing)
Application temp range	Between 12°C to 45°C (Recommended 16°C. to 34°C)
Component	Single component, ready to use coating
% Solids	Approx. 48 %
Solar Reflectance (ISO 9050/EN410)	Approx. 0.834
Solar Emittance (EN 673)	Approx. 0.938
Solar Reflective index (ASTM E 1980-11)	105
Abrasion resistance	6000 cycles
Adhesion Strength	Excellent
Lead / Chromate	Nil

### Consumption

On a smooth dense surface, each pack of 5 kg will cover approximately 17 m<sup>2</sup> to obtain DFT of approximate 125microns in two coats. Actual coverage depends on the numbers of coats, surface profile, loss and wastage.

### Packaging

AquaArm Kool Roof is available in 10kg pails

### Storage and Shelf Life

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment. Shelf life is 12 months when stored as per above. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advices please consult MYK Arment Technical Services Department.

### Limitations

1. Do not dilute the material
2. Always to be kept as final coat. i.e. No over coating over this AquaArm Kool Roof.
3. Do not apply within two hrs of sunset, rain, fog, or freezing temperatures.
4. All coating must be dry before exposing to foot traffic.
5. For exterior use only.

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### Health & Safety

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and food stuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet.

### 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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