



Roka Aqua Guard

PU Based, Single Component Protective & Waterproof Coating for Concrete and Metal Surfaces

Roka Aqua Guard is a PU based single component flexible waterproofing and a moderate heat reflective insulation system ideal for use on cementitious and metal surfaces.

Uses & Advantages:

- Excellent adhesion to porous and non-porous masonry substrates.
- For flat roofs as well as the other roof designs with complex geometry having limited accessibility in both new and old buildings.
- Highly elastomeric with excellent elongation & recovery properties.
- A cost-efficient solution to increase the life of failing buildings due to rain thrust and water borne chlorides.
- The highly reflective nature of the system results in energy saving by decreasing temperature.
- For overlapping joint protection of PEB roofs.

System Structure & Composition:

Waterproofing without Reinforcement:

- 2-3 coats are recommended for ideal results



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- For a UV-resistant coating that prolongs the lifespan of ageing roofs.
- Serves as a reflective layer to improve energy efficiency.
- **Waterproofing with Reinforcement (Roka Poly Fleece)**
- 3-4 coats are recommended for ideal results.
- Ideal for providing cost-effective solutions in both new construction and renovation projects.
- Suitable for areas with significant movement, uneven surfaces, or for covering cracks, joints, and seams on various substrates, including detailed sections.

	Film Thickness (mm)	Primer x 1	Num of Coats	Consumption	Reinforcement
System 1	0.3	Roka Aqua Guard diluted with 20% Water	2	1 Kg/m ²	NA
System 2	0.5	Roka Aqua Guard diluted with 20% Water	3	1.3 Kg/m ²	NA
System 3	1	Roka Aqua Guard diluted with 20% Water	3	1.8 Kg/m ²	Roka Poly Fleece
System 4	1.5	Roka Aqua Guard diluted with 20% Water	4	2.2 Kg/m ²	Roka Poly Fleece





Technical Data

Color	White. Other colors available on demand.
Appearance	Brush able consistency
Chemical Base	Polyurethane modified acrylic dispersion
Density	1.6 ± 0.05% kg/l at 20 °C
Solid Content	63±2% by weight
Volatile Organic Compounds (VOC) Content	≤ 40 g/l
Ambient & Substrate Temperature for application	10°C - 40 °C
Dew Point	Beware of condensation. Surface temperature during application must be at least +3 °C above dew point
Relative Air Humidity	80% max.
Substrate moisture content	< 6 % moisture content. No rising moisture according to ASTM (Polythene Sheet). No water/moisture/condensation on the substrate
Drying time	2 hours at 25 °C
Recoat Time	18 hours (touch dry) at 25 °C
Crack bridging capability	Up to 2.5 mm
Adhesion strength	>3 MPA (ASTM 4541)
Tensile Strength	Without Reinforcement: 1.6 N/mm ²



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	With Reinforcement: 12.5 N/mm ²
Elongation at Break	Without Reinforcement: > 600 % With Reinforcement: > 60 %
Initial Solar reflectance	≥ 0.82 (ASTM C 1549)
Initial Thermal Emittance	≥ 0.90 (ASTM E 408)
Solar Reflectance Index	100 (ASTM E 408)
Water Vapor Permeability	>25 g/m ² /day (ISP 9932:91)
Reaction to Fire	Euro class F
Shelf Life	12 months minimum if stored properly in un-opened & undamaged sealed packaging
Storage Conditions	Store in dry temperatures 5 °C to 35 °C in original packaging. Protect against direct sunlight & frost.
Service Temperature	Without Reinforcement: -10 °C to +70 °C max With Reinforcement: -15 °C to +80 °C max

Application Guide

- All the concrete & masonry surfaces should be sound, clean, free from dust, grease, curing/mold release agents & other minerals.
- The moisture content should not be more than 6%.



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- New concrete structures must dry for a minimum of 28 days and achieve a compressive strength of 25 MPa, with a pull-off strength of at least 1.5 MPa.
- Metal surfaces like steel must be free of any contaminants.
- The substrate & ambient temperatures should be between +8 to +40 °C.

Surface Preparation:

- All the uneven masonry spots must be dry grinded for a smooth substrate.
- Any imperfections, blowholes, joints, or cracks exceeding 3 mm, as well as surface leveling, must be treated with suitable materials such as Roka Epoxy Mortar 550 or Roka Rep, according to the surface needs.
- Any oil or grease contamination must completely be removed mechanically.
- All metallic surfaces must be abraded to reveal bright metal so that the coating can bond firmly with the substrate.
- While applying on existing paint/coatings, all the oxidized layers must be removed.
- While applying tiles or cladding, any damaged sections must be repaired properly. Ensuring that all tiles are fastened securely is also important.



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Mixing:

Before application, mix Roka Aqua Guard by hand or with a low-speed mixing drill equipped with an appropriate paddle for 1 minute to ensure uniform consistency. Avoid excessive mixing to reduce the incorporation of air.

Priming:

For priming, dilute Roka Aqua Guard by mixing in 20% water, then apply it to the prepared substrate using a soft bristle paintbrush or roller. Ensure that the primer coat is fully cured and no longer tacky before beginning the application of the first coat.

Application:

Without Reinforcement:

Roka Aqua Guard should be applied in 2-3 coats. One primer coat followed by 2 coats of Roka Aqua Guard.

With Reinforcement:

For an extended life cycle, Roka Aqua Guard should be used with Roka Poly Fleece. After substrate preparation, apply the first coat of Roka Aqua Guard followed by embedding the fleece (Poly Fleece) while the coat is wet with an overlap of around 50mm. It is important to ensure that



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there are no air bubbles on the surface of the membrane. Then apply at least 2 coats of Roka Aqua Guard at right angles to each other.

Airless spray machines can be used to apply Roka Aqua Guard on larger applications.

Cleaning of Tools:

Roka Aqua Guard can easily be removed using fresh water immediately after use. In the case of cured material, mechanical removal is required.

Packaging:

Roka Aqua Guard is supplied in 20kg containers.

Storage:

Unopened and undamaged sealed packaging must be kept in dry conditions, away from direct sunlight exposure and between temperatures of 5 °C to 35 °C.

Limitations:

- Roka Aqua Guard should not be applied on roofs subjected to long term ponding water.
- Roka Latic is not recommended for pedestrian traffic. The system must be covered with tiles, stone plates or other appropriate elements if pedestrian traffic is unavoidable.



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- It is important to use Roka Poly Fleece or other suitable membranes while applying in conditions with moderate to heavy movements or very low service temperature of -10°C or below.
- If Roka Aqua Guard is applied to substrates that are likely to exhibit outgassing during rising temperatures, coating may be subject to pin holes resulting in failure of the system.
- Roka Poly Fleece can be used as total reinforcement or for partial reinforcement over dynamic cracks & joints
- Recommended slope of 2% should be provided to the substrate.

Safety Measurements:

Wet Roka Aqua Guard is toxic. The working area must be well ventilated during application and drying. Appropriate protective clothing, gloves, eye protection, and respiratory gear should be used. Applying barrier creams offers extra skin protection. If skin contact happens, wash the area with soap and water. If the product gets into the eyes, rinse them immediately with plenty of clean water and seek medical attention. Once cured, Roka Aqua Guard is inert and harmless.

Important Note:

The information provided in this data sheet is based on ongoing development efforts and extensive field experience. While we strive to ensure the accuracy and reliability of the information, we cannot assume responsibility for any work performed using our materials, as we have no control over application methods, site conditions, and other factors. Due to ongoing research and



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development in our laboratories, we recommend that customers verify that this data sheet has not been replaced by a more recent publication.

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