

AQUASMART® PU-2K Waterproofing Kit

**Water based, two-component Fully Aliphatic Polyurethane kit,
for waterproofing & protection.**

DESCRIPTION

AQUASMART® PU-2K waterproofing kit is a complete system for waterproofing and protection of roofs. It is comprised of the main waterproofing membrane **AQUASMART® PU-2K** a two component, water based, aliphatic coating with exceptional performance in a multitude of applications; and a geotextile reinforcement layer. The system displays excellent water, chemical and UV resistance combined with exceptional ease of application. Due to the thixotropic nature it is easily applied on any surface no matter how complex.

Apply with brush, roller or airless spraying in two or more coats with minimum consumption 2,7 Kg/m².

COMPLIANCE - CERTIFICATION

- CE: ETAG 005, Part 1 & Part 6
No: CPR-5100/837/14
See below table.

RECOMMENDED FOR

Waterproofing and protection of:

- PU foam
- Roofs,
- light roofing made of metal or fibrous cement,
- encapsulation of asbestos roofing

LIMITATIONS

Not recommended for:

- Unsound substrates,

FEATURES & BENEFITS

- Water based
- Easy to apply & repair.
- Thixotropic
- Excellent abrasion resistance
- Seamless.
- Elastic.
- Capable of bridging small cracks.
- Highly resistant to stagnating water.
- Water vapor transmission: The film breathes so there is no accumulation of humidity under the coat.
- Excellent weather and UV resistance. The white colour reflects much of the solar energy and so reduces the internal temperature of structures considerably.
- Easy coloring of product with almost any water based pigment paste available at hardware stores.

APPLICATION PREREQUISITES

Can be successfully applied on:

Concrete, fibrous cement, cement roof tiles, wood, corroded metal, galvanized steel. For information about other substrates, please contact our tech department.

Standard concrete substrate conditions:

- Hardness: $R_{28} = 15 \text{ Mpa}$.
- Humidity: $W < 10\%$.
- Temperature: $5-35 \text{ }^\circ\text{C}$.
- Relative humidity: $< 85\%$.

Suitable primers: **AQUADUR, UNIVERSAL-PRIMER, MICROSEALER-PU** depending on the substrate. Please contact our technical department for primer selection advice.

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APPLICATION PROCEDURE

Clean the substrate using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must also be removed. Surface irregularities should also be filled.

Priming:

Apply recommended primer according to Technical Data Sheet specifications.

Mixing:

Use a low speed (300 rpm) mixer . Add second component and continue mixing for a few minutes. Although thinning is not necessary, the material can be further thinned by 5-10% water.

Application:

Apply first coat (1,5 Kg/m²) with roller, brush or airless spraying. Immediately on the wet material roll out the geotextile reinforcement and subsequently apply next coat(1-1,2 Kg/m²). Alternatively the second coat may be applied after first has dried.



Do not apply under conditions of wet weather or expected wet weather or on low temperature.

CONSUMPTION

- Applied with roller or brush -
First coat: 1,5 kg/m².
Second coat: 1-1,2 kg/m².
- Applied by airless spraying: 1 kg/m² per coat.
Minimum total consumption: **2,7 kg/m²**, for waterproofing.

CLEANING

Clean tools and equipment immediately with water.

PACKAGING

2,4 kg component B + 0,025 kg Comp. A
12 kg Component B + 0.125 kg Comp A

SHELF LIFE

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25 °C. Once opened, use as soon as possible.

SAFETY INFORMATION

The MSDS (Material Safety Data Sheet) is available on request.

TECHNICAL SPECIFICATIONS

AQUASMART® PU-2K

PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (Brookfield)	cP	ASTM D2196-86, @ 25 °C	8,000-12,000
Specific weight	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	1.25-1.35
Required application temperature	°C	-	> 5

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Reinforcement Layer (ATC/5100 STD 100 POLYESTER NONWOVEN NEEDLE PUNCHED AND CALANDERED reinforcement)

PROPERTY	UNITS	METHOD	SPECIFICATION
Weight per unit area	gr/m ²	EN 29073-1	100
Average Tensile strength	Mpa	EN ISO 10319	1,5
Average elongation	%	EN ISO 10319	>40

AQUASMART® PU-2K + Reinforcement layer (Technical Properties)

PROPERTY	UNITS	METHOD	SPECIFICATION
Service temperature	°C	-	-30 to 90
Hardness	Shore A	ASTM D2240	75-85
Tensile strength at break @ 23 °C	N/mm ²	EN ISO 527-3	7-8
Elongation (with reinforcement)	%	EN ISO 527-3	35
Elongation (without reinforcement)	%	EN ISO 527-3	>300
H ₂ O absorption	%	-	< 4
QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C)	-	ASTM G53	passed (2,000 hours)
Resistance to sodium Hypochlorite 5%	-	10 days @ 25° C	passed
Resistance to HCl 1N, PH=0.5	-	10 days @ 25° C	passed
Resistance to KOH 15%	-	10 days @ 25° C	passed
Resistance to Isopropyl alcohol	-	10 days @ 25° C	Non-permanent swelling
Resistance to sulphuric acid 5%	-	10 days @ 25° C	passed
Resistance to orthophosphoric acid 10%	-	10 days @ 25° C	passed

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CLASSIFICATION ACCORDING TO EOTA (EUROPEAN ORGANISATION OF TECHNICAL APPROVAL)

Essential characteristics	Performance	Harmonized technical specification
Reaction to fire	Class E	EN ISO 11925-2
Minimum thickness	1.5mm	ETAG 005 - part 6
Water vapour diffusion resistance factor (μ)	~3487	ETAG 005 - part 6
Water tightness	watertight	ETAG 005 - part 6
Resistance to wind loads	>50KPa	ETAG 005 - part 6
Resistance to plant roots	NPD	ETAG 005 - part 6
Statement on dangerous substances	Does not contain any	ETAG 005 - part 6
Resistance to slipperiness	NPD	ETAG 005 - part 6

Fire reaction	Class E	ETAG 005 - part 6
Expected working life	W3 (25 years)	ETAG 005 - part 6
Climatic zone of use	S (Severe)	ETAG 005 - part 6
User loads	P4	ETAG 005 - part 6
Roof slopes	S1 to S4	ETAG 005 - part 6
Minimum surface temperatures	TL4 (-30°C)	ETAG 005 - part 6
Maximum surface temperatures	TH4 (90°C)	ETAG 005 - part 6

NPD: No Performance Determined

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