

## AQUASMART® HYBRID-2K

### Very Fast Drying, Water based, two-component Fully Aliphatic Polyurethane Hybrid Coating for Waterproofing and Protection

#### DESCRIPTION

**AQUASMART® HYBRID-2K** is a two component, water based, very fast drying, aliphatic Polyurethane hybrid coating for waterproofing and protection.

The product is easily applied on both vertical and horizontal substrates and forms a seamless, elastic and hydrophobic membrane.

Apply with brush, roller or airless spraying in two or more coats. The quantity applied is depending on the final use requirements.

#### COMPLIANCE - CERTIFICATION

CE: ETAG 005, Part 1 & Part 6  
CPR-17/0922. See table below.

#### RECOMMENDED FOR

Waterproofing and Protection of:

- PU foam,
- Roofs,
- Light roofing made of metal or fibrous cement,
- Under tile applications such as wet rooms
- Protection of concrete/reinforced concrete from carbonization

#### LIMITATIONS

Not recommended for:

- Unsound substrates,

#### FEATURES & BENEFITS

- Water based
- Very fast drying
- Easy to apply & repair.
- Thixotropic
- Seamless.
- Elastic.
- Highly resistant to stagnating water (ensure proper adhesion-see suitable primers list).

- Water vapor transmission: The film breathes, so there is no accumulation of humidity under the coat.
- Excellent weather and UV resistance. The white color 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, subject to adequate tests.
- Compatible with all standard **ALCHIMICA®**'s Primers.

#### APPLICATION PREREQUISITES

##### Can be successfully applied on:

Concrete, fibrous cement, cement roof tiles, wood, galvanized steel, PU foam. 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**, **AQUASMART®-DUR**, **AQUASMART®-PU PRIMER 2K** or **MICROSEALER-50**, depending on the substrate. Please contact our technical department for primer selection advice.

#### 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.

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### Priming:

Apply recommended primer according to Technical Data Sheet specifications.

For non-demanding applications (where standing water or negative water pressure is not an issue) prime with same material by diluting with 15% water. For more professional applications, apply primers as per above list or contact our technical department for further information.

### 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 with roller, brush or airless spraying in two or more coats.



Do not apply under conditions of extreme wet weather or imminent rain or near freezing temperature.

### CONSUMPTION

- Applied with roller or brush -  
First coat: 0.6-0.8 kg/m<sup>2</sup>.  
Second coat: 0.6-0.9 kg/m<sup>2</sup>.

- Applied by airless spraying: 0.5 kg/m<sup>2</sup> per coat. Minimum total consumption: **>1.5 kg/m<sup>2</sup>** for waterproofing, depending on project requirements.

For use as a protective paint, recommended consumption is 0,5 Kg/m<sup>2</sup>.

### CLEANING

Clean tools and equipment immediately with water.

### PACKAGING

2.4 Kg comp. B + 25 gr comp. A

12 Kg comp. B + 125 gr 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. Protect from freezing conditions.

### SAFETY INFORMATION

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

### TECHNICAL SPECIFICATIONS

#### In liquid form (before application):

70% active substance.

PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (Brookfield)	cP	ASTM D2196-86, @ 25 °C	15,000-40,000
Specific weight	gr/cm <sup>3</sup>	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	1.45-1.55
Required application temperature	°C	-	> 5

## AQUASMART<sup>®</sup> HYBRID-2K

**In cured form (after application):**

PROPERTY	UNITS	METHOD	SPECIFICATION
Service temperature	°C	-	-20 to 90
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	90
Tensile strength at break @ 23 °C	Kg/cm <sup>2</sup> (N/mm <sup>2</sup> )	ASTM D412 / EN-ISO-527-3	60 (6.0)
Elongation @ 23 °C	%	ASTM D412 / EN-ISO-527-3	> 300
H <sub>2</sub> O absorption	%	-	< 5
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)

REQUIREMENT	PERFORMANCE	HARMONIZED TECHNICAL SPECIFICATION
Minimum thickness	1.6mm	ETAG 005 – part 6
Water vapour diffusion resistance factor ( $\mu$ )	~890	ETAG 005 – part 6
Resistance to wind loads	>50KPa	ETAG 005 – part 6
Statement on dangerous substances	Does not contain any	ETAG 005 – part 6
External fire performance	NPD	ETAG 005 – part 6
Expected working life	W2 (10 Years)	ETAG 005 – part 6
Climatic zone of use	S (Severe)	ETAG 005 – part 6
User loads	P1 to P3 (P3 REINFORCED)	ETAG 005 – part 6
Roof slopes	S1 to S4	ETAG 005 – part 6
Minimum surface temperatures	TL3 (-20°C)	ETAG 005 – part 6
Maximum surface temperatures	TH4 (90°C)	ETAG 005 – part 6

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