

AQUASMART® HYBRID

Very Fast Drying, Water based, Fully Aliphatic Polyurethane Hybrid Coating for Waterproofing and Protection

DESCRIPTION

AQUASMART® HYBRID is a water based, very fast drying, aliphatic Polyurethane hybrid coating for waterproofing and protection. The product may be applied as a one-component material (under the commercial name **AQUASMART® HYBRID-MONO**) or can be used with a second component (booster) during cold weather for faster curing (under the commercial name **AQUASMART® HYBRID-2K**).

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 certified acc. ETAG 005, Part 1 & Part 6
No: CPR-17/0922-COAT (AQUASMART HYBRID).

CE certified acc. EN 1504-02:2004
No: 2928-CPR-55 (AQUASMART HYBRID MONO).

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: (in some cases, application is possible with the use of geotextile reinforcement; please contact our technical department for consultations).

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

AQUASMART® HYBRID

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.

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.

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/m².
Second coat: 0.6-0.9 kg/m².
 - Applied by airless spraying: 0.5 kg/m² per coat.
Minimum total consumption: **>1.5 kg/m²** for waterproofing, depending on project requirements.
- For use as a protective paint, recommended consumption is 0,5 Kg/m².

CLEANING

Clean tools and equipment immediately with water.

PACKAGING

Plastic pails of 12 kg (+125 gr booster), 20 kg (+ 200 gr booster)

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.

AQUASMART® HYBRID

TECHNICAL SPECIFICATIONS

In liquid form (before application):

70% active substance.

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

In cured form (after application):

PROPERTY	UNITS	METHOD	SPECIFICATION
Service temperature	°C	-	-20 to 90
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	70
Tensile strength at break @ 23 °C	Kg/cm ² (N/mm ²)	ASTM D412 / EN-ISO-527-3	50 (5.0)
Elongation @ 23 °C	%	ASTM D412 / EN-ISO-527-3	> 300
H ₂ O absorption	%	-	< 5
QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C)	-	ASTM G53	passed (2,000 hours)

AQUASMART® HYBRID

CLASSIFICATION ACCORDING TO EOTA (EUROPEAN ORGANISATION OF TECHNICAL APPROVAL)

No: CPR-17/0922-COAT (AQUASMART HYBRID)

CE
19
ALCHIMICA S.A. 7 Lampsakou, Athens-GREECE
CPR-17/0922-COAT
ETAG 005, Part 1 & Part 6 1219 AQUASMART-HYBRID
Liquid Applied Roof Waterproofing Kit, Based on Polyurethane
www.alchimica.com

REQUIREMENT	PERFORMANCE	HARMONIZED TECHNICAL SPECIFICATION
Minimum thickness	1.6mm	ETAG 005 – part 6
Water vapour diffusion resistance factor (μ)	~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

AQUASMART® HYBRID

CLASSIFICATION ACCORDING TO EN 1504-02

No: 2928-CPR-55 (AQUASMART HYBRID MONO)

CE
19
ALCHIMICA S.A. 7 Lampsakou, Athens-GREECE
2928-CPR-55
EN 1504-2:2004 2928 AQUASMART-HYBRID MONO Liquid Applied Roof Waterproofing Kit, Based on Polyurethane www.alchimica.com

Essential characteristics	Performance	Harmonized technical specification
CO ₂ permeability, m	$S_D > 50$	EN 1504-2:2004
Permeability to water vapor, m	$S_D < 5$ Class I	
Capillary absorption, $\text{kg/m}^2 \cdot \text{h}^{0.5}$	$w < 0.1$	
Adhesion strength by pull-off test, N/mm^2	≥ 1.5	
Abrasion resistance, mg	< 3000	
Impact resistance, N.m	≥ 4 Class I	
Reaction to fire	Euroclass F	

NONE OF OUR PUBLISHED INSTRUCTIONS AND SPECIFICATIONS, IN WRITING OR OTHERWISE, ARE BINDING EITHER IN GENERAL OR WITH RESPECT TO ANY THIRD PARTY RIGHTS, OR DO THEY RELIEVE INTERESTED PARTIES OF THEIR DUTY TO SUBJECT THE PRODUCT TO AN ADEQUATE EXAMINATION OF ITS SUITABILITY. IN NO EVENT WILL ALCHIMICA S.A. BE RESPONSIBLE FOR DAMAGES OF ANY NATURE, WHATSOEVER, RESULTING FROM THE USE OF OR RELIANCE UPON INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS. ALCHIMICA S.A. RESERVES THE RIGHT TO CHANGE AT ANY TIME THE PROPERTIES OF ITS PRODUCTS. PLEASE REFER TO THE CURRENT VERSION OF THE TECHNICAL DATA SHEET, AVAILABLE FROM OUR WEB SITE WWW.ALCHIMICA.COM

