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 (AQUASMART HYBRID)**.**
CE certified acc. EN 1504-02
No: 2085-CPR-061 (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 ^{o}C.
- Relative humidity: < 85%.

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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. 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^2.
  Second coat: 0.6-0.9 kg/m^2.
- Applied by airless spraying: 0.5 kg/m^2 per coat.

Minimum total consumption: **>1.5 kg/m^2** for waterproofing, depending on project requirements.
For use as a protective paint, recommended consumption is 0,5 Kg/m^2.

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 ^{o}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_2O 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

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CLASSIFICATION ACCORDING TO EN 1504-02

No: 2085-CPR-061 (AQUASMART HYBRID MONO)

CE
19
ALCHIMICA S.A. 7 Lampsakou, Athens-GREECE
2085-CPR-061/05.03.2020
EN 1504-2:2004 2085 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, kg/m^{2}·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	

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