MARMOLINE
ADVANCED BUILDING MATERIALS

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AQUATA SEAL 300 PU

One-component polyurethane liquid waterproofing membrane

DESCRIPTION

One component, liquid-applied, polyurethane based, roof coating which cures with the humidity of atmosphere to form a strong, elastic and impermeable to water, membrane.

APPLICATION FIELDS

- Long-lasting waterproofing and protection
- Highly resistant to stagnant water. Does not peel off.
- Forms a seamless membrane without joints which is 100% bonded to the substrate. Even when damaged, water does not spread to the entire surface of the substrate, and the membrane can easily be repaired locally.
- High mechanical properties such as tensile strength, tear strength and abrasion resistance. Suitable for pedestrian traffic.
- Water vapor permeable. Does not cause moisture accumulation on the ceiling.
- Does not release any dangerous substances once fully cured.
- Low free monomer isocyanate content.

CHARACTERISTICS/ ADVANTAGES

- Very good resistance to weather conditions: rain water, frost, UV rays.
- Highly elastic properties even at very low temperature (-40^{O}C). Very good crack-bridging properties.
- Excellent thermal resistance. The membrane does not turn soft or tacky at high temperatures (+80 ^{O}C).
- Excellent adhesion on several substrates without use of primer. Special primers are available to cover almost all type of substrates.
- Good resistance to chemicals and detergents.
- High reflection of solar energy (only in white colour) and significant reduction of the temperature inside the building during summer.
- Easy to apply by brush, roller or airless spray.

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PRODUCT INFORMATION

Colour	White as standard. Grey, red and black upon special order
Packaging	Lids of 1 kg, 6 kg, 25 kg.
Storage conditions	Store in the original, closed, sealed packaging, protected from direct sunlight and frost and at temperatures from +5°C to +35°C
Shelf life	At least 12 months in sealed containers, when stored in dry and cool areas. When opened, the product should be used all at once. The half-used pail will develop a cured layer of material on top during storage. If this cured layer is removed, the remaining liquid material can be used again.

TECHNICAL CHARACTERISTICS

Film formation time (23°C, 50% R.H.)	4 hours	
Roof slope	< 5% (S1) to >30% (S4) each slope	
Hardness	Shore A: 81 Shore D: 23	DIN 53505
Elongation to break	~ 300% 3°C ~ 230% 40°C	EN ISO 527-3
Tensile strength	3.3 MPa 3°C 3.1 MPa 40°C	
Dynamic indentation	Tight (P4)	EAD 030350-00-0402
Watertightness	Watertight	EN 1928
Vapour diffusion	15.4 g/m^2 /day	EN 1931
Resistance to surface temperatures	-30 °C to 80 °C	EAD 030350-00-0402
Resistance to mechanical damage	low (application without reinforcement) up to high (reinforced with polyester nonwoven)	EAD 030350-00-0402
Climatic zones	Suitable for any climatic zone	EAD 030350-00-0402
Expected working life	25 years	EAD 030350-00-0402

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APPLICATION INFORMATION

Substrate temperature	+5°C / +35°C
Ambient temperature	+5°C / +35°C
Minimum consumption	1.9 kg/m^2 (2.5 kg/m^2 with polyester fleece)
Minimum layer thickness	1.2 mm (1.8 mm with polyester fleece)
Curing time	12 - 24 h, depending on weather conditions

DIRECTIONS OF USE

SUBSTRATE PREPARATION

The substrate should be stable, solid, dry and free of dust, loose particles and all kinds of contaminants. The surface must be dry, clean, free of dust, loose materials, salts or oils. AQUATA SEAL 300 PU should generally be applied on dry and solid surfaces. Old coatings should be removed. The substrate should not be washed with water prior to the application of the coating. A moisture content of less than 5% is generally recommended for concrete surfaces. Joints and cracks should be sealed with AQUATA PU 35 joint sealant.

PRIMING

AQUATA SEAL 300 PU can be applied to a clean and dry concrete surface without the use of a primer. However, when an acrylic or hybrid sealant has previously been applied to the surface, in order to increase adhesion we recommend the prior application of the one-component polyurethane primer MST 30 PU. In any case, the application surface of AQUATA SEAL 300 PU must be well dried.

APPLICATION

AQUATA SEAL 300 PU is applied by roll, brush or air-gun in 2-3 layers. For improved mechanical and crack-bridging properties, it is recommended to apply AQUATA SEAL 300 PU together with polyester fleece (of 120 gr/m^2). The polyester is applied on top of the freshly laid first coat of AQUATA SEAL 300 PU, before the application of the second and the third layer. The use of AQUATA SEAL 300 PU together with polyester fleece is highly recommended for sealing the areas of joints and cracks as well as the corners between the floor and the wall or any other connection such as chimneys, bases of solar panels, etc.

Furthermore, the use of AQUATA SEAL 300 PU in combination with polyester fleece is also recommended for waterproofing roofs made with cementitious screeds which have the tendency to crack. Time interval between each coat is at least 3 h and not more than 48 h. When primer is applied, the first coat of AQUATA SEAL 300 PU can be applied not earlier than 1 hour and not later than 24 hours from the application of the primer.

The drying time is significantly affected by the environmental conditions (temperature and humidity).

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For application by airless spray, it is suggested to dilute the product with Xylene up to 10%. **Never dilute the product with water.**

The same solvent can be used for cleaning the tools or the equipment from the fresh coating. Once the material is cured, it can only be removed mechanically. AQUATA SEAL 300 PU is not suitable for application as a directly exposed layer on swimming pools.

When surface made with AQUATA SEAL 300 PU is wet, it can become slippery. To avoid this effect, the coating can be sprinkled on top with an appropriate particle size of quartz while the material is still fresh.

For laying tiles on top of AQUATA SEAL 300 PU in balconies, bathrooms or kitchens check the adhesion of the tile adhesive on the coating, or alternatively take the following steps: a) Flood the freshly led final coating of AQUATA SEAL 300 PU with quartz, b) Wipe off the residual quartz after the coating is cured and c) Bond the tiles with a high quality and flexible tile adhesive on the quartz layer.

CONSUMPTION

A minimum consumption of 1,9-2,5 kg/m2 is recommended (if polyester fleece is added). In any case the consumption depends on the roughness of the surface or the specifications of the application. Do not apply more than 0,7 – 0,8 kg per coat as this could lead to bubble entrapment inside the coat.

HEALTH, SAFETY & ENVIROMENTAL PROTECTION

Detailed information and instructions regarding the safe management of the product and in matters of Health & Safety, are provided in the most recent Safety Data Sheet (SDS), copies of which are available on the company's website https://marmoline.gr/ or upon request.

LEGAL NOTICE

We guarantee the quality of all our products, based on their
technical specifications, as described in the Declaration of Performance (CE) and this Technical Data Sheet. Such guarantee refers only to the products that we deliver for use and never to its application or final result, which largely depends on the experience and quality of work of each user and on the application conditions. The user is advised to test the product on a small scale, and if he is satisfied with the result, then to use the product on large scale in his project. All data stated in this Technical Data Sheet are based on laboratory tests. The really measurable data might differentiate due to conditions that are not subject to our control. The recommendations and implementation instructions must be considered by the user as indicative, and always with given that the product has been traded and traded and stored according to its instructions. As it is not possible to control the parameters/conditions of its application product in practice, no guarantee is provided for the final result of each application. Consequently, no legal liability of the Company can be established based on the information and instruction given in this Technical Data Sheet. The Company reserves the right to modify data listed in this Product Data Sheet, with no previous warning. Users must refer to the latest version of the product Technical Data Sheet.

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DoP: 268 MAR-CPR

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EAD 030350-00-0402
ETA-24/0136
MARMOLINE AQUATA SEAL 300 PU
Liquid applied roof waterproofing on the basis of polyurethane

			without nonwoven	*with polyester nonwoven*
External fire performance of roofs			F_{roof}	
Reaction to fire			Class E	
Dangerous substances			NPD	
Watertightness			Watertight	
Resistance to wind loads			≥ 50 kPa	
Water vapour diffusion resistance factor			μ ~ 1900	μ ~ 1600
Resistance to mechanical damage			P1	P1 to P4
Resistance to fatigue movement			W3	W2
Low surface temperature			TL4 (-30°C)	
High surface temperature			TH3 (+80°C)	TH4 (+90°C)
Working life			W3 (25 years)	W1 (10 years)
Climatic zones			M and S	
Resistance to plant roots			NPD	
Effects of variations in kit components and site practices	at +3°C	Max. tensile strength	3.31 MPa	5.75 MPa
		Elongation	289%	25.3%
		Dynamic indentation	P4 (tight)	
	at +40°C	Max. tensile strength	3.1 MPa	6.72 MPa
		Elongation	226%	32.5%
		Dynamic indentation	P4 (tight)	
Effects of day joints			1.33 MPa	1.5 MPa
Slipperiness			NPD	

See DoP in https://marmoline.gr