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 vapour 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

Minimum expected working life	W2 (10 years)
Climatic zone	S (Severe Climate)
User Load	P4 (Special)
Roof slopes	S1 to S4
Minimum surface temperature	TL4 (-30 ^{O}C)
Maximum surface temperature	TH4 (+90 ^{O}C)
Reaction to Fire (EN 13501-1)	Class E

TECHNICAL CHARACTERISTICS

Dynamic viscosity EN ISO 3219 (23 ^{o}C, shear rate 100[1/s])	2500 mPa.s
Density DIN EN ISO 2811-1 (21 ^{O}C)	1,5 gr/cm^3
Temperature variations resistance:	-40 to 90 ^{o}C.
Surface membrane formation time (23 ^{o}C, 50% R.H.)	3 hours
Elongation at break point (DIN 53504)	500%
Fatigue resistance, EOTA TR-008 -10 OC, initial crack	No cracks
Tensile strength (DIN 53504)	4,50 N/mm^2
Hardness SHORE A (DIN 53505)	78
Water Vapour permeability (DIN EN 1931) 23 ^{O}C-0/75% R.H.)	12,8 gr/m^2/day
Impermeability to water (DIN EN 1928) 1m water column, 24h)	Watertight
Adhesion on concrete (with primer)	> 2 N/mm^2
Accelerated Weathering Test, UV & water exposure, EOTA TR-010, Radiant exposure 400 MJ/m^2 2400 hours	Passed, No significant changes
Resistance against thermal ageing EOTA TR-011 100 days at 80 ^{O}C	Passed, No significant changes

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APPLICATION INFORMATION

Curing time	12 to 24 h, depending on environmental conditions
Colour	White as standard. Grey, red and black upon special order
Packaging	Lids of 1 kg, 6 kg, 25 kg.
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.

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

MST 30 PU can also be applied without the use of a primer. However, is recommended in order to improve the mechanical properties of the surface of the concrete. Wet substrates should generally be avoided.

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 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

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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).

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 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 it 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 execute 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 good quality (flexible) tile adhesive on the quartz layer.

CONSUMPTION

A minimum consumption of 1,0-1,3 Lt/m^2 (1,5 – 2 kg/m^2) is recommended. In any case the consumption depends on the roughness of the surface or the specifications of the application. Do not apply AQUATA SEAL 300 PU more than 0,7 – 0,8 kg per coat as this could lead to bubble entrapment inside the coat.

LEGAL NOTICE

We guarantee the quality of the product, in terms of its technical specifications, as they are presented in the technical data sheet. This guarantee strictly concerns only the product available, and in no case, the final result from its application, which depends to a large extent on the experience and quality of work of each user, as well as the application conditions.

The user is advised to apply the product on a small scale, and after being sure of the result, then to use it in his project. The publication of this technical data sheet cancels any previous edition of it.