Aqua Tech
waterproofing solutions

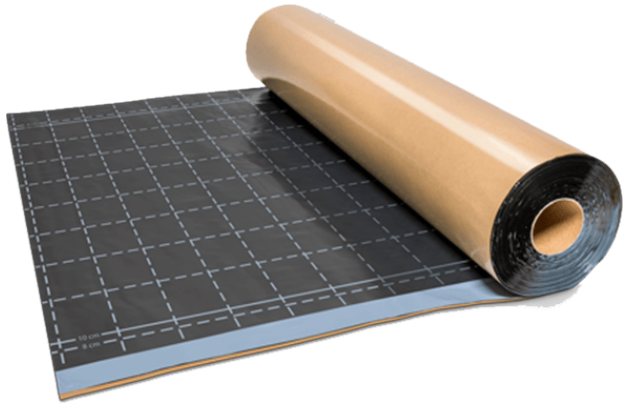
CE
EN 13969
EN 14967

TECHNICAL DATA SHEET 11/04/2023

AquaThene®5000T

Bituminous, self-adhesive waterproof membrane with a vulcanizing strip for vertical and horizontal sealing of underground structures, ceilings, balasted roofs terraces, balconies

- to seal vertical and horizontal underground structures
- for vertical and horizontal seals
- as inter-floor, balasted roofs, balconies insulation
- seal immediately after arrangement
- perfect adhesive properties
- flexible
- cold-gluing
- easy application
- solvent-free product.
- crack bridging ability up to 5 mm
- barrier to radon



Product description

AquaThene 5000T is a self-adhesive sealing membrane, thickness 1.5 mm and strip width 1000 mm, made of bituminous compound modified with polymers, on base consisting of cross-laminated HDPE foil resistant to tearing. On one side of the membrane sheet there is a 2,5 cm wide strip of pure bituminous compound, which vulcanize after attaching, providing very tight and durable sealing between membrane strips. Adhesive surface is normally protected by masking paper. The membrane contains no solvents and does not contaminate underground water. It may be used at temperatures from -5°C up. It is not resistant to prolonged effect of UV radiation.

System complementing

The membrane is complemented by:
- grounding preparation **AquaThene PRIMER**
- double-sided tape **AquaThene BITAPE**
- tape with a layer of aluminum foil **AquaThene ALU TAPE**
- tape with a layer of interlining **AquaThene BAND**
- corner tape **AquaThene CORNER TAPE**
- bitumen trowelling compound **AquaThene MASTIC**
- liquid polymer-bitumen membrane **Sealatex PLUS**

Intended use

The **AquaThene 5000T** membrane is designed to seal foundations and underground parts of buildings against permanently operating groundwater and seepage water within the foundation slab, on the foundation walls of basements, underground garages and retaining walls. It can also be used as horizontal waterproofing on the surface of ceilings, ballast roofs, balconies, terraces
AquaThene 5000T should be protected with a protective layer (e.g. dimpled foil, fleece) or covered with a layer of thermal insulation.
The **AquaThene 5000T** membrane can be used on all kinds of mineral substrates, such as: concrete, aerated concrete, mineral plasters, brick walls or concrete blocks.

For more information on other possible applications of the membrane, please contact our technical advisor

Requirements

The product meets the requirements of the standards:
EN 13969
EN 14967

Preparation of the substrate

The substrate must be strong, stable, even, without open scratches and protruding elements. Sharp edges and corners should be chamfered or curved. Fill in gaps and scratches.
In order to avoid blisters on very porous or uneven surfaces, where the contact surface is less than 80%, a layer of lean concrete should be poured or a leveling layer should be made. The surface of the substrate should be free of ice, oil stains, tar, mortar residues, dust and dirt.
Lay the membrane on dry surfaces with a humidity not exceeding 8%. During installation, do not allow any water to remain between the substrate and the membrane.
Mineral surfaces should be primed with **AquaThene PRIMER.** Installation of membranes can begin after the priming layer has dried.

Application

Installation of the insulation should begin with securing the corners, corners and edges with properly cut membrane pieces or with the **AquaThene CORNER TAPE** corner tape.
The insulation of vertical surfaces should be started at the top by placing the membrane strips vertically.
Unwind the **AquaThene 5000T** roll so that the protective foil is on the bottom, cut it into strips of the required length and roll it up again. Remove the protective layer of foil from the membrane immediately before laying it, slowly and evenly removing fragments of approx. 30 cm long. Place the membrane on the substrate with the adhesive side and press it down using e.g. a hard brush or a cloth. Then peel off another 30 cm of the protective film. Pressing should be started from the inside and towards the outside in order to eliminate the formation of folds and kinks in the membrane. Peel off the cover sheet from the vulcanizing strip. Make the next strip with an overlap of 10 cm according to the line printed on the foil. In no case, the longitudinal and transverse overlap, may not be less than 8 cm.
The places of the bets should be pressed particularly carefully. The upper end of the insulation, laid on vertical surfaces, should be sealed with **AquaThene ALU TAPE**, **AquaThene BAND** or **AquaThene MASTIC** closing tape with mechanical protection (pressure strip).
The thermal insulation or protective layer can be installed immediately after the membrane has been laid, using the **AquaThene BITAPE** double-sided bitumen tape or **AquaThene MASTIC** or **Sealatex PLUS** bituminous mass.

Tools and auxiliary materials

- measure tape
- knife with retractable blade
- plasterers feather edge
- hard brush

Recommendations

During installation, the membrane should be protected against solar radiation, high temperature and moisture.
The membrane should be covered within 14 days of its installation.
Repair eventual damage by sticking a patch made of a fragment of the membrane, without priming.
The edges of the **AquaThene 5000T** membrane, passages through the through-holes, pipe penetrations, band-iron, and anchorages should be protected with **AquaThene MASTIC** or **Sealatex PLUS**.

Consumption

about 1,1 m^2 of membrane for every m^2 of insulated surface

Package

Roll 1m x 15 m; 15 m^2

Shelf life and storage

12 months in the original packaging. Store in an horizontal position. Protect against UV rays, frost, heat and moisture. Do not epose to direct sunlight. Pallets with membrane rolls must not be stacked.

Industrial safety

Wear appropriate protective clothing when laying. Wash hands with warm water immediately after finishing work.

PROPERTIES ACCORDING TO EN 13969 STANDARD	STANDARD NO.	AquaThene 5000T
watertightness	EN 1928	400 kPa
resistance to dynamic load (impact)	EN 12691	method A: ≤ 200 mm
joint (connection) strength	EN 12317-1	230±80 N/50 mm
flexibilty at low temperature	EN 1109	≤ -30°C
tensile properties: maximum tensile force (longitudinal and transverse)	EN 12311-1	240±40 N/50mm
tensile properties: elongation at maximum tensile force	EN 12311-1	long. 370±100 % trans. 320±80 %
resistance to static loading	EN 12730	method B: ≤ 5 kg
resistance to tearing (nail)	EN 12310-1	140±40 N
watertightness after artifical ageing	EN 1296 / EN 1928	60 kPa
watertightness after exposure to chemicals	EN 1847 / EN 1928	60 kPa
reaction to fire	EN 13501-1	class E
PROPERTIES ACCORDING TO EN 14967 STANDARD		
watertightness	EN 1928	400 kPa
resistance to dynamic load (impact)	EN 12691	method A: ≤ 200 mm
watertightness after artifical ageing	EN 1296 / EN 1928	60 kPa
watertightness after exposure to chemicals	EN 1847 / EN 1928	60 kPa
flexibilty at low temperature	EN 1109	≤ -30°C
OTHER PROPERTIES		
visible defects	EN 1850-1	none
straightness	EN 1848-1	pass
lenght	EN 1848-1	15 m
width	EN 1848-1	1 m
nominal thickness	EN 1849-1	1,5 mm
hazardous substances		none
resistance to hydrostatic pressure	tested by Form + Test Seidner	8 bar
radon diffusion coefficient	tested by Kamski & Partner	$1{,}49 \cdot 10^{-13}$ m^2/s
diffusion resistance factor	EN 1931	Sd=235 m
crack bridging ability	DIN 28052-6	≥ 5 mm
rain resistance / waterproof		immediately
water impermeability	DIN 52123	≥ 4 bar more than 24 hours
consumption		about 1,1 m^2 of membrane for every m^2 of insulated surface

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