

Aquathene APF-3000W

Self-Adhesive Modified Bitumen Waterproof Membrane With Cross-Laminated Film



Product Description

Aquathene APF-3000W is a high-polymer, pressure-sensitive adhesive bitumen membrane, a patented innovation from Keshun. Its robust, dual-layer film structure, coupled with both vertical and horizontal mesh, significantly enhances tensile strength, dimensional stability, and heat resistance.

The application of our patented-wet applied method ensures a chemical cross link between the bitumen layer of the membrane and the cement mortar, forming a robust waterproof "skin" on the substrate. This "skin" remains securely attached to the substrate, guaranteeing the durability of the waterproof layer and preventing water seepage.

Specifications

Model	Product structure	Length x Width x Thickness
E,H	Double sides (D); Single side (S)	20m*1m*1.5mm; 15m*1m*2.0mm

Product Features

- Full surface bonding: Prevents water, moisture, and gas infiltration;
- Stability: Dimensional stability and durability, high tear strength, puncture, and impact resistance;
- Safe & easy installation: Cold application with self-adhesive overlaps;
- Chemical resistance: Provide effective external protection against aggressive soils and groundwater;
- Flexibility: High elongation to accommodate movement.

Where To Use

- Waterproof and damp proof works for all non-exposed parts of subway, tunnel, pond, utility tunnel, civil building etc.
- The waterproof construction of corroded and largely-deformed structure parts
- The constructions like warehouse, workshop etc. Which have higher requirements for waterproofing and damp proof

Advantages

- Automatically grows with structural concrete
- Automatically heals the damage under $\phi 2\text{mm}$ and expresses excellent water tightness to nail.
- Automatically offset structural deformation
- Automatically locks the leakage position.

Technical Data Based For Reference

Implemented standard:GB/T 35467-2017

Item		Index	
		E	H
Tensile property	Tension/(N/50mm) \geq	200	300
	Elongation at maximum tension % \geq	180	50
	Stretching phenomenon	No separation between rubber layer and polymer film or tire base	
Tear strength/N \geq		25	20
Heat resistance(70°C,2h)		No flow, dripping, slippage \leq 2mm	
Low temperature flexibility (-20°C)		No crack	
Impermeability(0.3Mpa,120min)		Impermeable	
Peel strength between membrane&membrane(overlap edge)/(N/mm)	No treatment \geq	1.0	
	Immersion treatment \geq	0.8	
	Heat treatment \geq	0.8	
Oil permeability/number of sheets \leq		2	
Persistent adhesivity/min \geq		30	
Peel strength with cement mortar/(N/mm)	No treatment \geq	1.5	
	Heat treatment \geq	1.0	
Peel strength after immersion with cement mortar/(N/mm) \geq		1.5	
Heat aging(80°C,168h)	Tension retention rate/% \geq	90	
	Elongation retention rate/% \geq	80	
	Low temperature flexibility(-18°C)	No crack	
Dimensional change rate/%		± 1.5	± 1.0
Thermal stability		No bulging, flow, polymer film or tyre base edge curling does not exceed 1/4 of the side length	

Construction Procedures

Wet apply

Substrate Preparation

- The substrate should be clean and flat without obvious protruding parts;
- During construction, there should be no open water on the base surface. If there is water accumulation, it must be drained before construction. The dry base surface needs to be moistened with water.
- Various embedded structures and accessories have been installed and fixed firmly

Construction process:

1. Clean the substrate
2. Elastic line positioning, membrane pre-applied
3. Preparation of cement slurry
4. Special part treatment
5. Apply APF-3000W wet-applied waterproofing membrane
6. Membrane seam lap joint fixation, edge pressing
7. Sealing material edge sealing
8. Organization acceptance
9. Protective layer construction

Precautions:

- During dry applied or wet apply construction, use the pressure roller to exhaust the air in the membrane.
- After the waterproof layer of the membrane is accepted, it should be protected as soon as possible to avoid exposure and physical damage. For the damaged part, the surface of the damaged part must be cleaned up, and then repaired with the same type of membrane. The overlap width with the surrounding area is not less than 100 mm.
- It is recommended that the protective layer be laid within one week after the construction is completed.

Storage And Transportation

- The storage temperature should be maintained between 5° C and 45° C, avoiding exposure to direct sunlight and rain. Adequate ventilation should be ensured during storage.
- The material should be stored vertically as a single layer. Avoid contact with acids, alkalis, oils, organic solvents, etc.
- Shelf life is 12 months from the date of production under appropriate storage conditions.