

Self-adhered Polymer Modified Bituminous Waterproofing Sheet

Self-adhesive Waterproofing Membrane

·Product Overview

Self adhesive polymer modified asphalt waterproofing membrane (hereinafter referred to as Type N) is made of synthetic rubber such as SBS, high-quality paving bitumen, and tackifiers as the base material. The upper surface material is PET film, PE film, aluminum foil, or silicone release film, and the lower surface is covered with silicone release film as the anti-adhesive layer. This is a carrier-free self-adhesive polymer modified bitumen membrane.

Self adhesive polymer modified asphalt polyester mat waterproofing membrane (hereinafter referred to as Type PY) uses long-fiber polyester mat as the carrier and tackified polymer modified bitumen as the coating material. The upper surface is covered with PE film, fine sand, slate, aluminum foil, or release film as the isolation layer,and the lower surface is covered with silicone release film as the anti-adhesive layer. This is a self-adhesive polymer modified bitumen membrane with polyester mat carrier.

·Product Features

- Special formulation and unique manufacturing process – cold application, no open flame, no adhesive required, non-polluting to the environment.
- Polyester mat offers high tensile strength and high elongation – strong adaptability to substrate shrinkage, cracking, and deformation.
- SBS modified bitumen as the coating – good high and low temperature resistance, suitable for exposed waterproofing.
- Excellent self-adhesion – membrane overlaps bond as long as the membrane itself lasts.
- The underside of the membrane is coated with self-adhesive rubberized bitumen in regular strips, creating strip bonding to the substrate, with unique functions:
- Forms a vapor release channel – balances substrate vapor pressure and prevents blistering.
- When the substrate shrinks, cracks, or deforms, it avoids "zero elongation" cracking caused by full bonding.

·Applications

Suitable for roofing, below-grade, interior, municipal engineering, water storage tanks, swimming pools,
subway, and tunnel waterproofing of industrial and commercial buildings. Also suitable for wood and metal structure roof waterproofing projects. Especially ideal for waterproofing renovation of

military facilities, oil depots, chemical plants, grain depots, and other locations where open flame is not allowed.





·Product Classification

Carrier	Upper Surface Material	Performance Type	Thickness	Width	Area
Carrier-free (Type N)	PE film PET film Film-less double-sided self-adhesive (D)	Type I	1.2 mm 1.5 mm 2.0 mm	1000mm	10m2 15m2 20m2 30m2
		Type II			
Polyester mat (Type PY)	PE film Fine sand (S) Film-less double-sided self-adhesive (D)	Type I	2.0 mm		
		Type II	3.0 mm 4.0 mm		

·Performance

Self adhesive polymer modified asphalt waterproofing membrane complies with GB23441-2009 standard.

Type N – Main physical and mechanical properties

No.	Parameter		Index				
			PE		PET		D
			I	II	I	II	
1	Tensile properties	Tensile force (N/50mm) ≥	150	200	150	200	-
		Elongation at max. tensile force (%) ≥	200		30		-
		Asphalt elongation at break (%) ≥	250		150		450
		Phenomenon during	No separation of asphalt coating from film before film rupture				-

		stretching						
2		Nail tear strength (N) ≥	60	110	30	40	-	
3		Heat resistance	70°C, slip ≤ 2 mm					
4		Low temperature flexibility℃	-20	-30	-20	-30	-20	
			No cracks					
5		Water impermeability (30min)	0.2 Mpa , 120min no leakage					
6	Peel strength (N/ mm) ≥	Membrane to membrane	1.0					
		Membrane to aluminum plate	1.5					
7		Nail sealability	Pass					
8		Oil migration (sheets) ≤	2					
9		Tack retention (min) ≥	20					
10	Heat aging	Tensile force retention (%) ≥	80					
		Elongation at max. tensile force (%) ≥	200		30		400(asphalt layer elongation at break)	
		Low temperature flexibility (℃)	-18	-28	-18	-28	-18	
			No cracks					
		Peel strength – membrane to aluminum (N/mm) ≥	1.5					
11		Appearance≤	No blistering, wrinkling, sliding, or flowing					
		Dimensional change (%) ≤	2					

Type PY – Main physical and mechanical properties

No.	Parameter			Index	
				I	II
1	Soluble content (g/m2) ≥		2.0	1300	-
			3.0	2100	
			4.0	2900	
2	Tensile properties	Tensile force (N /50mm) ≥	2.0	350	-
			3.0	450	600
			4.0	450	800
		Elongation at max. tensile force (%) ≥		30	40
3	Heat resistance			70℃ no slipping, flowing, or dripping	
4	Low temperature flexibility(℃)			-20	-30
				No cracks	

5	Water impermeability		0.3 Mpa, 120min no leakage	
6	Peel strength (N/mm) ≥	Membrane to membrane	1.0	
		Membrane to aluminum plate	1.5	
7	Nail sealability		Pass	
8	Oil migration (sheets) ≤		2	
9	Tack retention (min) ≥		15	
10	Heat aging	Elongation at max. tensile force (%) ≥	30	40
		Low temperature flexibility(℃)	-18	-28
			No cracks	
		Peel strength – membrane to aluminum (N/mm) ≥	1.5	
		Dimensional stability (%) ≤	1.5	1.0
11	Re-peel strength of self-adhesive asphalt (N/mm) ≥		1.5	