

Pre-applied & Wet-applied HDPE Waterproofing Membrane membrane

Wet & Pre applied Waterproofing Membrane

Product Overview

Pre-applied PY type (polyester mat): The wide-width self-adhesive pre-applied polyester mat waterproofing membrane is made of bitumen-based polyester mat membrane as the main material (with functional additives), coated with a self-adhesive layer on both sides, and provided with a removable silicone-coated film as the release material.

- Pre-applied P type (polymer): The wide-width self-adhesive polymer pre-applied waterproofing membrane is made of ethylene-vinyl acetate (EVA) or high-density polyethylene (HDPE) homogeneous sheet as the main material, with a self-adhesive layer coated on the surface, and covered with a silicone-coated release film. If required by the project, geotextile can be laminated onto the polymer layer to reinforce the membrane.
- Wet-applied polyester mat membrane: The wide-width wet-applied polyester mat waterproofing membrane is made of bitumen-based polyester mat membrane as the main material (with functional additives), coated with a self-adhesive layer on one or both sides, and provided with a removable silicone-coated film as the release

material.

Product Features

- Pre-applied membrane is suitable for below-grade waterproofing and similar projects – bonds directly to fresh concrete.
- Wet-applied membrane is suitable for non-exposed waterproofing – can be bonded to the substrate with cement mortar; overlaps between membranes shall be self-adhesive.
- Excellent adhesion – fully bonds to the structure, effectively preventing water migration even if the membrane is damaged.
- No open flame – easy application, cold process, safe and environmentally friendly.

Application Method

1. Construction process flow

Clean substrate → Mark positioning lines → Apply sealing tape → Detail treatment → Lay membrane → Seal with sealant → Self-inspection → Submit for approval

2. Construction procedures

1. Clean substrate: Before starting, clean the substrate and check whether it meets design requirements. Any sharp protrusions or rebar stubs shall be removed by chiseling or cutting.
2. Mark positioning lines: After the substrate is cleaned, first mark lines to position the membrane. Determine the size and position of the first sheet.

3. Apply sealing tape: Cut our company’ s double-sided专用 sealing tape into 150 mm wide strips. Before laying the main membrane, apply the sealing tape along the center of the positioning line. While applying, brush substrate cleaner
4. simultaneously. After the sealing tape is in place, proceed to lay the large-area membrane.
5. Detail treatment: All details shall be treated with double-sided self-adhesive membrane (polyester mat or carrier-free self-adhesive membrane is
6. recommended).
7. Lay membrane: When laying the main membrane, align it along the center (1/2) of the sealing tape. Brush substrate cleaner (or cement slurry) while laying. Press the membrane flat and expel air. After the first sheet is laid, the second sheet s hall be aligned and laid along the joint line, using the same method as the first sheet.
8. Seal with sealant: After the large-area membrane is laid, use special sealant to seal the joints. Apply sealant evenly without missing any spots.
9. Self-inspection: After all procedures are completed, self-inspect for any damage or open seams. If found, repair promptly.
10. Submit for approval: After self-inspection, submit for approval. The inspection
11. shall strictly follow the construction procedures and techniques, checking for open seams, poor bonding, damage, etc.

Product Classification

Application Method	Main Material	Adhesive Surface	Performance Type	Main Material Thickness	Total Membrane Thickness
Pre-applied (Type Y)	Polymer waterproofing membrane (Type P)	Single-sided (S) Double-sided (D)	- -	0.7 mm	1.2 mm
				1.2 mm	1.7 mm
				2.0 mm	2.0 mm
	Bitumen-based polyester mat waterproofing membrane (Type PY)	Double-sided (D))	- -	- -	4.0
Wet-applied (Type W)	Polymer waterproofing membrane (Type P)	Single-sided (S) Double-sided (D)	Type I and Type II	- -	1.2 1.5 2.0
	Bitumen-based polyester mat waterproofing membrane (Type PY)	Double-sided (D))	Type I and Type II	- -	3.0 4.0

Performance Complies with standard GB/T23457-2017 "Pre-applied waterproofing membrane".

No.	Parameter		Index		
			P	PY	R
1	Soluble content（g/m2） ≥		-	2900	-
		Tensile force	600	800	350

2	Tensile properties	(N/50mm) ≥			
		Tensile strength / Mpa ≥	16	-	9
		Elongation at break of membrane (%) ≥	400	-	300
		Elongation at max. tensile force (%) ≥	-	40	-
		Phenomenon during stretching	No separation of adhesive layer from substrate or carrier		
3	Nail tear strength (N) ≥		400	200	130
4	Elastic recovery rate /% ≥		-	-	80
5	Puncture resistance / N ≥		350	550	100
6	Impact resistance (0.5kg. m)		No leakage		
7	Static load		20 kg, No leakage		
8	Heat resistance		80℃ ,2h no displacement, flow, or drip	70℃ ,2h no displacement, flow, or drip	100℃ ,2h no displacement, flow, or drip
9	Low temperature bending		Substrate: -35℃, no cracks	-	Substrate: -35℃, no cracks
10	Low temperature flexibility		Adhesive layer: -25℃, no cracks	-20℃, no cracks	-
11	Oil migration (sheets) ≤		1	2	1
12	Water migration resistance (hydraulic gradient)		0.8 Mpa/ 35 mm, 4 h no migration		
13	Water impermeability (0.3 Mpa, 120 min)		No leakage		
14	Peel strength to fresh concrete/ (N/mm)	Untreated ≥	1.5	1.5	0.8, cohesive failure
		After water immersion ≥	1.0	1.0	0.5, cohesive failure
		Sand-contaminated surface ≥	1.0	1.0	0.5, cohesive failure
		UV aged ≥	1.0	1.0	0.5, cohesive failure
		Heat treated ≥	1.0	1.0	0.5, cohesive failure
15	Shear strength to fresh concrete (N/mm) ≥		1.0	1.0	0.5, cohesive failure
16	Peel strength of	Untreated ≥	0.8	0.8	0.6
		After water immersion	0.8	0.8	0.6

	membrane-to-membrane (overlap)/(N/mm)	≥			

Performance Complies with standard GB/T35467-2017 "Wet-applied waterproofing membrane".

No.	Parameter		Index		
			H	E	PY
1			-		2100
2	Tensile properties	Tensile force (N/50mm) ≥	300	200	500
		Elongation at max. tensile force (%) ≥	50	180	30
		Phenomenon during stretching	No separation of adhesive layer from substrate or carrier		
3	Tear force / N ≥		20	25	200
4	Heat resistance (70℃, 2h)		No flow, drip, or slip ≤ 2 mm		
5	Low temperature flexibility (-20℃)		No cracks		
6	Water impermeability (0.3 Mpa, 120 min)		No leakage		
7	Peel strength of membrane-to-membrane (overlap)/ (N/mm)	Untreated ≥	1.0		
		After water immersion ≥	0.8		
		After heat treatment ≥	0.8		
8	Oil migration (sheets) ≤		2		
9	Tack retention / min ≥		30		
10	Peel strength to cement mortar / (N/mm)	Untreated ≥	1.5		
		After heat treatment ≥	1.0		
11	Peel strength to cement mortar after water immersion / (N/mm)		1.5		
12	Heat aging (70℃, 168h)	Tensile force retention /% ≥	90		
		Elongation retention /% ≥	80		
		Low temperature flexibility (-18℃)	No cracks		
13	Dimensional change /% ≤		± 1.0	± 1.5	± 1.5
14	Heat stability		No blistering, flowing; edge curling of polymer film or carrier shall not exceed 1/4		

		of the side length 1/4