Pre-applied Polymer Modified Bituminous Waterproof Membrane

Description

The fully reinforced pre-applied system membrane is designed for horizontal and vertical external blind-side waterproofing applications and composed of high performance SBS modified bitumen with ultra strength polyester felt reinforced. It is applied before the steel reinforcement is fixed and the concrete poured. It is a fully and permanently bonded membrane that protects against groundwater ingress as well as gases and chemicals, this will eliminate the potential of water penetration and leakage. It is pre-applied and installed without heat or open-flame.

Features

- Time & cost saving on project schedule & budget, fast & easy installation
- No need for concrete screed on the horizontal and protection board on the vertical
- Excellent protection against water infiltration, non-permeable to vapor and gas
- Superior mechanical properties, tensile strength and elongation, resistant to chemicals
- Outstanding adhesion to structural poured concrete, fully sealed systems on overlaps

Uses

For horizontally and vertically structures require protection against groundwater and seepage, such as basements, foundations, tunnels, garages, residential and commercial buildings.

Specification

Reinforced felt	PET
Upper surface materials	Sand or PE film
Lower surface materials	PE film
Thickness, mm	4.0
Width, m	1.0, 2.0
Length, m	10

Technical Data: Executive Standard GB/T23457-2009

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1	Soluble content, g/m^2 ≥		2900
2	Tensile properties	Tension, N/50mm ≥	800
		Elongation of maximum tension,% ≥	40
3	Thermal resistance, 70°C×2h		No drift, no flow, no dripping
4	Low temperature flexibility, -25°C		No crack
5	Nail shank tearing, N≥		200
6	Oil permeability, Pieces ≤		2
7	Anti static loading, 20kg		No leakage
8	Impact resistance, Diameter= (10±0.1) mm		No leakage
9	Water migration resistance, 0.6 MPa		No migrating
10	Peel strength with poured concrete after immersing water, N/mm≥		1.5
11	Peel strength with poured concrete N/mm≥	No treatment	2.0
		Surface with cement powder contaminates	1.5
		Surface with sediments contaminates	1.5
		UV ageing	1.5
		Thermal ageing	1.5
12	Thermal stability	Appearance	No wrinkle, no flow, no dripping
		Dimensional change, %≤	1.5

13	Thermal ageing 70°C×168h	Retention of tension, %≥	90
		Elongation retention, %≥	80
		Low temperature flexibility, -23°C	No crack

Packing

Roll size: 1mor 2m x 10m
Rolls per pallet: 25 rolls/pallet

Application instructions

Horizontal waterproofing: Apply the membrane loose laid on the concrete blinding or compacted soil for 30 minutes; End laps will be staggered by at least 300 mm; Starting at the lowest point to higher, fix one end of the membrane, remove the isolation film, and install it according to the line. Sheet edges must be overlapped a minimum of 75mm, end laps must be a minimum of 150mm, with upper sheets lapped over lower sheets, use the rubber drag roll to press the membrane well.

Vertical waterproofing: The membrane is installed in vertical strip of 5 meter maximum onto acceptable substrate by removing the silicon coated release film on the underside. Ensure minimum 75 mm side overlap between each strip. Use a hard roller to apply pressure over the entire surface of the membrane in order to ensure sufficient adhesion to prevent membrane movement during installation of poured in place concrete. The uppermost edge of each strip must be mechanically fastened to substrate using 50 mm(diameter) round plates and appropriate fasteners for blinding material at every 300 mm on centre. Horizontal joints shall be aligned and overlapped by minimum 200 mm covering all fasteners.

Details: All angle changes as well as inside and outside corners must be reinforced by installing an additional 300 mm piece of membrane centered in the angle. All small protrusions (steel work, pile cap etc.) through the waterproofing membrane, must be sealed with waterproofing coating and flashing reinforcement as required.

Protection layer: On all horizontal surfaces, it is recommended to apply membrane as protection layer over the pre-applied membrane prior to placement of the reinforcement steel bars as a precaution to limit the chances of any incidentals while work is in progress. Install the protection sheet in longitudinal strip centered over membrane side laps by removing the silicon coated release film on the underside. Use a broom or a roller to apply a uniform pressure over the entire surface of the protection sheet.

Storage

Inclination and lateral placement during transportation should be avoided. Be stored in well-ventilated places protected from sunlight and raining. The temperature in stored areas can not be higher than 50° C.

It can not be put in more than two levels. If packed by cartons, it can not be put in more than five levels. The normal shelf life is 1 year.

Safety precautions

Do not work in a rainy or snowy day, or heavy wind (above 5 grade). Unsuitable for construction when ambient temperature below 0°C. If it rains or snows in the construction, protective action to the laid membrane is a must.

During installation, exercise extreme caution when working with open flame; Examine all surfaces to which the flame has been applied for smoldering or burning conditions.

Do not use open flame on or near highly combustible materials. Follow all local fire codes.

Safety protection facilities and articles shall be well prepared, fire-fighting equipment shall be deployed according to regulation.