

PVC (Polyvinyl Chloride) Waterproof Membrane

Description

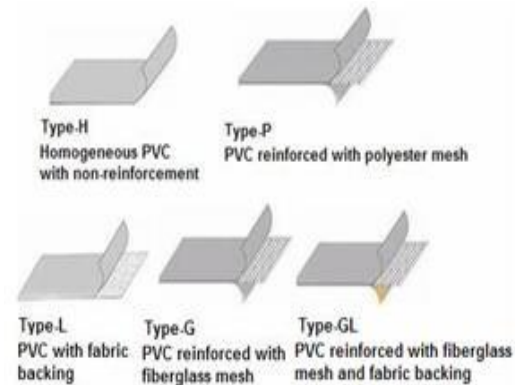
The PVC (Polyvinyl Chloride) waterproofing membrane is formulated by using high quality PVC resin as main ingredient and co-extruding with the plasticizer, antioxidant agents, UV light absorbents and other auxiliaries. The high performance membrane is available in variety of colors, reinforced by a high-strength inserted polyester mesh or fabric backing or non-reinforcement, provides a long-lasting durability and waterproof protection.

Features

- ◆ Long service life, at least 20 years on roof, 50 years underground
- ◆ High tensile strength and cold flexibility, good elongation, dimension stability and wind loads
- ◆ High reflectivity, energy efficient; Resistant to UV and oxidation and weatherproof
- ◆ Strong adaptability to deformation and cracks
- ◆ Self-extinguishing and chemical resistance
- ◆ High puncture and tear resistance, low weight
- ◆ Weldability and easy installation

Uses

- ◆ Roofs, underground structures of residential and commercial buildings
- ◆ Parking lots, reservoirs, swimming pools, sewage treatment plants
- ◆ Highway, airports, railway, bridges, tunnels



Type and Specification

Thickness, mm	1.2, 1.5, 1.8, 2.0
Width, m	1.0, 2.0, 2.05
Length, m	20m or customized
Type	H: Homogeneous PVC membrane with non-reinforcement
	L: PVC membrane with fabric backing
	P: PVC membrane reinforced with polyester mesh
	G: PVC membrane reinforced with fiberglass mesh
	GL: PVC membrane reinforced by fiberglass and fabric backing

Technical Data: Executive Standard GB12952-2011

No	Items		Index				
			H	L	P	G	GL
1	Tensile property	Maximum tension, N/cm \geq	-	120	250	-	120
		Tensile strength, MPa \geq	10.0	-	-	10.0	-
		Elongation at maximum tension, % \geq	-	-	15	-	-
		Elongation at break, % \geq	200	150	-	200	100
2	Heat treatment dimensional change, % \leq		2.0	1.0	0.5	0.1	0.1
3	Heat aging (80 °C)	Test phenomenon, 672h	No blister, no crack, no cohesion, no delaminating, no void				
		Retention of maximum tension, % \geq	-	85	85	-	85
		Retention of tensile strength, % \geq	85	-	-	85	-
		Retention of elongation at maximum tension, % \geq	-	-	80	-	-
		Retention of elongation at break, % \geq	80	80	-	80	80
4	Low temperature bending, -25°C		No crack				
5	Water impermeability, 0.3MPa \times 2h		Impermeable				

6	Angle tearing strength, N/mm \geq		50	-	-	50	-
7	Trapezoidal tearing strength, N/mm \geq		-	150	250	-	220
8	Water absorption, 70 °C*168h	After immersed in water, % \leq	4.0				
		After drying in air, % \geq	-0.40				
9	Impact resistance, 0.5kg • m		No leakage				
10	Anti static loading		-	-	20kg, no leakage		
11	Seam peel strength, N/mm \geq		4.0 or membrane damaged		3.0		
12	Chemical Resistance	Test phenomenon	No blister, no crack, no cohesion, no delaminating, no void				
		Retention of maximum tension, % \geq	-	85	85	-	85
		Retention of tensile strength, % \geq	85	-	-	85	-
		Retention of elongation at maximum tension, % \geq	-	-	80	-	-
		Retention of elongation at break, % \geq	80	80	-	80	80
Low temperature bending		-20 °C, No crack					
13	Accelerated weathering	Test phenomenon, 1500h	No blister, no crack, no cohesion, no delaminating, no void				
		Retention of maximum tension, % \geq	-	85	85	-	85
		Retention of tensile strength, % \geq	85	-	-	85	-
		Retention of elongation at maximum tension, % \geq	-	-	80	-	-
		Retention of elongation at break, % \geq	82	80	-	80	80
Low temperature bending, -20 °C		No crack					

Packing

12-24 rolls/pallet depending on the thickness and length of the roll.

Application instructions

According to characteristics of different projects waterproof layer design, offering 3 installation options as follows:

- ◆ **Mechanically fastened system:** Suitable for roofs with limited load bearing capacity, e.g. large gymnasium roofs, steel structure roofs, recover and waterproof systems for both new and existing building as well as underground projects, sidewall and vault cave tunnel etc.
- ◆ **Cold adhered:** Any roofs with irregular shape and with limited load bearing capacity.
- ◆ **Ballasted:** Suitable for a wide variety of industrial and civil projects and public building

Surface preparation: Substrates need to be clean, smooth, dry (Moisture <9%), no grit and free of sharp edges, loose or foreign materials, oil, grease and other materials that may damage the membrane. All surface voids greater than 5mm wide, shall be properly filled with an acceptable fill material and level it.

Placement of membrane: Pave the PVC membrane on the substrate, exhaust and compaction; Overlapping width between membrane in longitudinal should be more than 50mm; Hot-air welding is adopted for joint and detail treatment

Storage

Store away from sources of punctures and physical damage. Keep dry and store away from ignition sources and open flame.

Shelf Life: Unlimited

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.

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 regulations.

Membranes are slippery when wet. Use caution when walking on wet membranes.

Use proper stacking procedures to ensure sufficient stability of the materials.