

Weldable EPDM Waterproof Membrane

Description

The 100% cured EPDM membrane is made of a synthetic rubber Ethylene-Propylene-Diene Monomer. The membrane is weldable with hot air and extremely durable, and has excellent thermal shock and UV rays/ozone resistance. It retains its elasticity at temperature from -45°C to 130°C and resistant to temperature shocks up to 250°C, quick and easy to install.

Uses

- ♦ Roofs or re-roofing, underground structures of residential and commercial buildings
- ♦ Parking lots, reservoirs, swimming pools, sewage treatment plants, warehouses
- ♦ Highway, airports, railway, bridges, tunnels

Features

- ♦ Excellent tensile strength and elongation rate, dimensions stability, long service life
- ♦ Good welding characteristics and resistant to UV/oxidation/heat and ozone
- ♦ Superior mechanical properties and stability and flexibility at low and high temperature
- ♦ High puncture and tear and impact resistance
- ♦ Excellent gas impermeability and resistance to acid rains, low weight
- ♦ Quick and easy installation, no need of flames or torches



Specification

Thickness, mm	Width, m	Length, m
1.2, 1.5, 2.0	1.2 or customized	15, 20 or customized

Technical Data: Executive Standard GB18173.1-2012

No	Item	Unit	Index
1	Tolerance of size	Thickness	% ±10
		Width	% ±1.0
		Length	% No negative
2	Tensile strength at break	Normal temperature, 23°C	MPa ≥8.0
		High temperature, 60°C	MPa ≥2.3
3	Ultimate elongation	Normal temperature, 23°C	% ≥500
		-20°C	% ≥200
4	Tearing strength	KN/m	≥25
5	Watertightness, 0.3MPa*30min	*	Impermeable
6	Foldability at low temperature	-45°C	* No crack
7	Heat expansion	Extension	mm ≤2
		Contraction	mm ≤4
8	Hot air ageing, 80°C×168h	Tensile strength retention at break	% ≥80
		Retention of elongation at break	% ≥70
9	Alkaline resistance, 10%Ca(OH) ₂ Normal temperature×168h	Tensile strength retention at break	% ≥80
		Retention of elongation at break	% ≥80
10	Ozone resistance, 40°C×168h	Elongation 40%, 500×10 ⁻²	* No crack
11	Accelerated weathering	Tensile strength retention at break	% ≥80
		Retention of elongation at break	% ≥70

Packing

10-24 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.

Fold back half the sheet that is to be applied. Adhesives is adopted for joint and detail treatment. Apply adhesive to the substrate surface and the folded membrane as well. Fold over and adhere working progressively towards the edge of the sheet. Fold back other edge, adhering the other half of the sheet in the same manner as the first half.

◆ **Ballasted:** Suitable for a wide variety of industrial and civil projects and public building.

◆ **Hot-air welding:** Laps are welded with hot-air. The welding temperature is 500°C-600°C.

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 EPDM membrane on the substrate, exhaust and compaction; Position the membrane to relax for approximately 30 minutes, allowing for the side laps to be in the correct position for adhesive application. Standard seam overlaps should be 100 mm and 200 mm for seams with batten and upstands.

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.