

BILIZO VAPORUFE

High Density Polyethylene (HDPE) Pre-Laid Waterproof Membrane

Product Description

BILIZO VAPORUFE HDPE is a Pre-Laid Waterproof Membrane System creates strong bonding with concrete.

It is a waterproof membrane incorporating a high density polyethylene (HDPE) backing with adhesive layer and a protective layer. BILIZO VAPORUFE was created especilally for below foundations, on basement walls and tunnel projects.

It strongly adheres to concrete. After membrane bonds to concrete, possible water leakage will be blocked between the membrane and concrete. Isolates and protects the sturcture against the ground water and gases.

There is a 70mm width on the membrane to be reserved for self-adhesive overlap.

The thickness of BILIZO VAPORUFE HDPE is 1,0mm, 1.2 mm or 1.5 mm.

High Density Polyethylene Waterproof System Includes:

BILIZO VAPORUFE HDPE membrane with 1.2mm and 1.5mm thickness options choosen for the characteristics of project.

- BILIZO Sticky Tape: Two types of sticky tape exists.
 - Double sided sticky
 - One side sticky one side adhered to concrete
- Nonwoven Laying for Tunnel Applications

Advantages

- New wet bonding technique,
- Sedimentation and deformation of basic layers does not affect the waterproofing performance;
- Resistance to chemicals, protects structure from salts and sulphate attack;
- Mould-resisting, weather-resisting and corrosion-resisting;
- Low requirements for basic layers;
- Convenient to apply and no torch heated overlaps;
- Safe and eco-friendly.

Uses

- Basements and basement walls;
- Subways;
- Tunnels;
- Other underground public constructions.

Technical Data

Property	Typical Value	Test Method
Colour	White	NA
Thickness	1.2 mm	ASTM D3767
Tensile Strength, Film	25 mPa	ASTM D 412 Modified
Elongation	500%	ASTM D 412 Modified
Resistance to Hydrostatic Head	70m	ASTM D 5385 Modified
Peel Adhesion to Concrete, No treatment	1000 N/m	ASTM D 903 Modified
Puncture Resistance	1000 N	ASTM E 154

Application

Surface preparation

All surfaces should be firm, dense, smooth and without bumps, cracks and large holes. The horizontal surfaces should be plain concrete or other dense bases. Loose particles should be avoided.

The sheet-pile/concrete pile and the support plate on vertical substrates should be joined tightly to provide supports. surfaces, not needed to be dry but standing water should be removed.

Membrane Laying

Fixing membranes on horizontal planes

- When applying the membrane, face the HDPE side to the ground and face the release liner side towards concrete. Overlaps should be done by the following the overlap markings. The roll ends should be joined by BILIZO Sticky Tapes.
- The width of the existing overlap area along the length direction is 70mm. Remove the isolation films off to make two membrane edges to join each other. Then use a roller to apply pressure on overlap areas and remove possible air to bond membranes tightly to ensure overlapping done properly.
- On the transversal laps, use 70-80 mm BILIZO Sticky Tapes. Clean the joints at first, then attach the adhesive tapes to the joints and press tightly to ensure a continuous bond.
- Before placing the reinforcement the plastic release liner must be removed from the membrane.
- Use suitable rebar spacers referred by the manufacturer.

Fixing membranes on vertical planes

- Mechanically fasten the membrane by HDPE side faced to the wall and the release liner pouring concrete.
- The mechanically fastening should be done in every 400-600 mm (or according to the design) at least 10mm away from the edges.
- The upper edge of membrane should be sealed by specific BILIZO Sticky Tapes.
- Ensure removing plastic release liner before reinforcement placing.

For Best Performance

Minimum application temperature is 5°C. For the applications at lower temperatures, please contact with manufacturer. BILIZO VAPORUFE membranes should only be applied by trained applicators. Spikes wearing people should be avoided from the application areas. When doing the lapping process along the length direction, adhesive planes should be clean and press should be tight to ensure good bonding abilities. Smoking is not allowed at the application area.

Safety Measures

Please refer to the Material Safety Data Sheet (MSDS) prepared as per the related EU directives before use.