PC-Self® XPE

Cross Laminated PE Backed bituminous self adhesive membrane

PC-Self® XPE is a Self-adhesive carrier-free SBS-modified bitumen membrane specifically engineered for waterproofing of foundations and engineering structures, including radon protection. The production process involves the application of a specialized self-adhesive polymer-bitumen binder on top of a high-performance polymer film that provides exceptional elongation and dimensional stability. Additionally, the bottom surface of the material is coated with a protective film that can be effortlessly removed.

ADVANTAGES

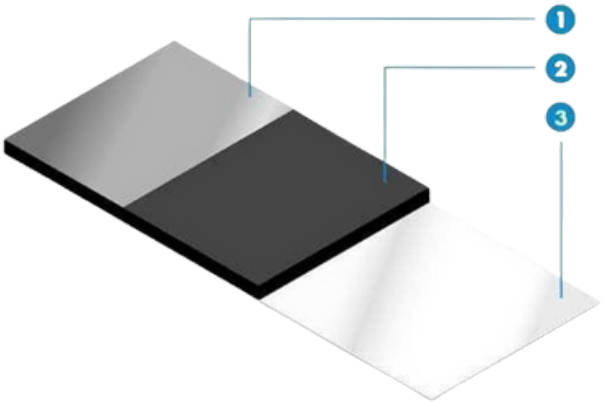
- Record high elongation properties prevent the material from damage caused by movements of the substrate.
- Excellent physical and mechanical characteristics in all directions.
- Prevents radon penetration into the structure.
- The high-quality polymer-bitumen compound has the property of "self-healing", which gives absolute tightness in places of mechanical penetration.
- High speed of application.
- Safety and cheap application
- The membrane is applied without use of gas and flame.
- No need for any additional equipment and skills.
- High repairability.

AREA OF APPLICATION

- Waterproofing of underground parts of premises and engineering structures.
- Indoor/outdoor waterproofing of premises and buildings.
- Waterproofing of confined areas, where standard technologies cannot be applied (e.g. bathroom ,roof).
- Underlay on pitched roofs and vapor barrier on the corrugated steel sheets and precast concrete slabs.
- Corrosion protection of steel pipes and junctions.

STANDARDS AND CERTIFICATION

- Meets the requirements of the UNE EN 13970 norm.
- Meets the requirements of the ASTM norm.

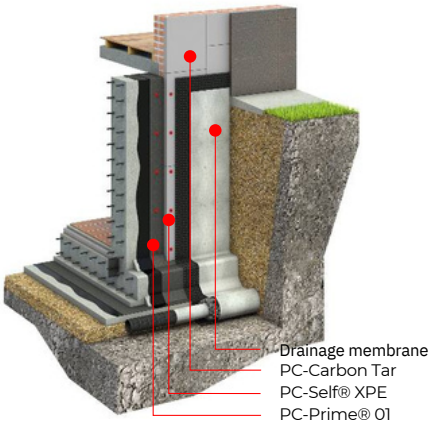


1.Cross laminated polyethylene film (HDPE)
Protects the waterproofing layer from mechanical damage and impacts of chemically aggressive environment, provides dimensional stability

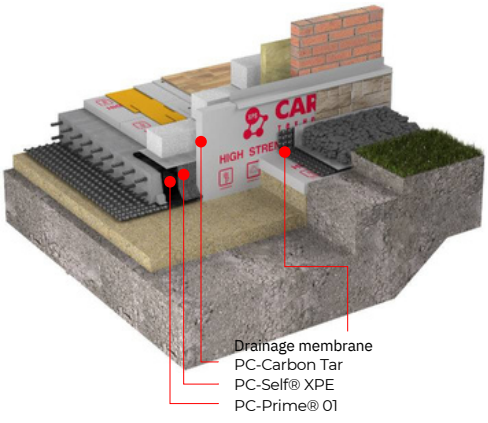
2. **Self-adhesive SBS modified bitumen**
The high elasticity of this layer preserves waterproofing undamaged when cracks and splits occur in the foundation

3.**Releasable polyethylene film**
Used for underside surface protection from sticking in the roll

FOUNDATION WITH THERMAL INSULATION



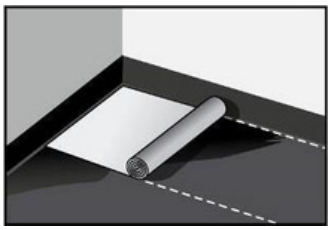
SLAB ON GRADE FOUNDATION



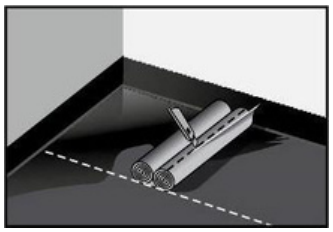
METHOD OF APPLICATION

FLAT ROOF OR INDOOR WATERPROOFING

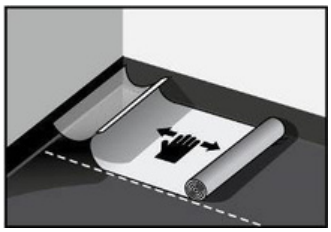
Clean and treat the surface with bitumen primer.



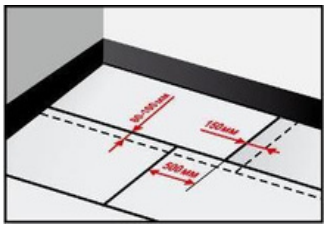
Fit and straighten the membrane to the area of application.



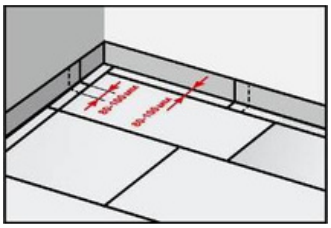
Re-roll the membrane to the center, pre-cut the protective film.



Remove the protective film and smooth the membrane.



Longitudinal overlaps – 80-100 mm.
End overlaps – 150 mm.
Overlaps to be glued with bitumen mastic of 1 mm thickness.

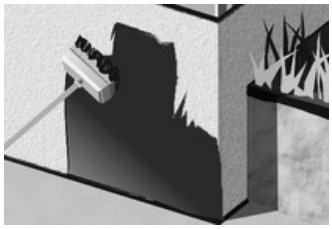


On a vertical surface the material to be placed on a height, sufficient according to the thickness of the floor and decoration.

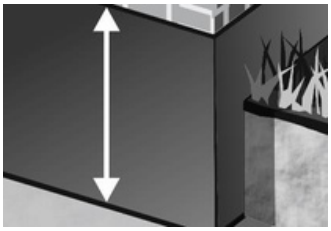
! Self-adhesive materials to be installed at the temperatures above +10 °C.

! Surface must be smooth, dry ,clean and with no oil stains.

BASEMENT AND FOUNDATION WATERPROOFING

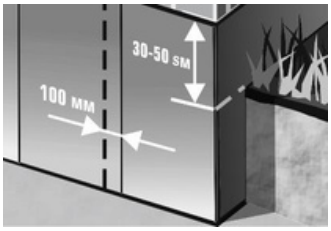


The surface must be smooth, dry, clean and with no oil stains. For better adhesion, treat the surface with primer.



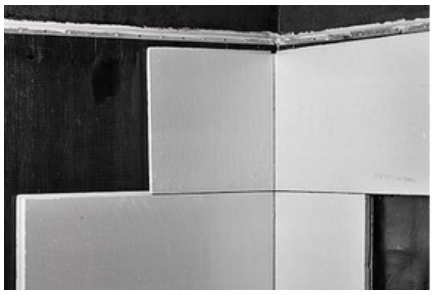
Measure the depth of the foundation and cut the material to the required length.

Apply the material from the top downward by gradually removing the protective film, unrolling the membrane, and smoothing it to the surface.

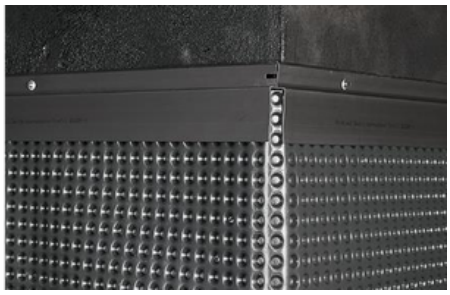


The material is to be installed to the a height of 30-50 cm above the ground level. Longitudinal overlaps should be 100 mm, sheet end overlaps - 150 mm.

The top end of the waterproofing membrane is to be fixed at the basement level by profiled metal edge strip and sealed.



Protect the membrane from mechanical damage by means of thermal insulation or protective slabs.



As a layer of protection from mechanical impacts PC-Plantoper® Geo profiled HDPE membrane is recommended.

INDICATIONS

Self-adhesive bitumen membranes in cold periods tend to harden resulting in decreased adhesion. Installation of self-adhesive materials should be performed within favorable climatic conditions i.e. dry weather and temperatures above +10°C. At temperatures below +10°C and high air humidity, the adhesion of the membrane could be compromised and therefore it is necessary to use the hot air to restore characteristics of the material.

GENERAL REQUIREMENTS

- Rolls of the material should be stored indoors in a dry place in their original packaging and taken to the construction site ready to use.
- Rolls should be stored upright in a 1-row height. Falls or other mechanical impacts should be avoided during transportation and storage.
- The application surface must be cleaned of dust, debris, grease, leaves, oil and should not have gaps and cracks or other irregularities to ensure proper adhesion of the membrane.

MAINTENANCE RECOMMENDATIONS

- A general examination of the condition of the waterproofing and surrounding roof components.
- An inspection of all functional roofing elements including skylights, outlets, up stands, penetrations, and any other visible roofing components.
- Clean outlets, drains, and gutters and remove any debris from the roof.
- Periodic removal of mildew, moss, herbs, or any other kind of vegetation that has been accumulated on the waterproofing.
- Periodic removal of possible sediments accumulated on the deck (silt, sleds, slate granules, etc) by occasional water accumulation.
- Periodic removal of debris and small objects that may have accumulated on the roof.
- Ensure surrounding structural elements are sound such as eaves, flashings, slate tiles and brickwork.
- Ensure that the waterproofing is in good condition and there are no blisters, damage or separation.
- Review the condition of the waterproofing (adherence to up stands, condition of overlaps, visual appearance, etc) and repair the defects observed.

TECHNICAL DATA

Essential characteristics	Test method	Performance	Essential characteristics	Test method	Performance
Protection of the top side	-	high-performance polymer film	Softening point, °C	ASTM D36	≥+100
Protection of the bottom side	-	self-adhesive binder / anti-adhesion film	Flexibility at low temperature, °C	EN 1109-1	≤-15
Length, m	EN 1848-1	≥20.0	Flow resistance at elevated temperature, °C	EN 1110	≥+85
Width, m	EN 1848-1	≥1.0	Visible defects	EN 1850-1	Pass
Straightness	EN 1848-1	≤10 mm / 5 m	External fire performance	EN 13501-5	Froof
Mass per unit area, kg/m^2	EN 1849-1	1.75±0.15	Reaction to fire	EN 13501-1	Euroclass E
Thickness, mm	EN 1849-1	1.5±0.10	Watertightness at 60 kPa	EN 1928	Pass
Type of carrier	-	carrier less	Adhesion of granules, %	EN 12039	NPD
Tensile properties: maximum tensile force L / T, N/50mm	ASTM D5147	400±100 / 300±100	Peel resistance of joints: overlap to overlap / overlap to film, N/50mm	EN 12316-1	≥25 / NPD
Tensile properties: elongation L / T, %	ASTM D5147	≥800 / ≥800	Water vapour transmission properties	EN 1931	μ=120000
Determination of shear resistance of joints, kN/m	EN 12317-1	≥2.0	Dangerous substances	Does not contain dangerous substances	

ISO 9001 CERTIFIED

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