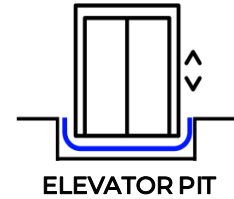
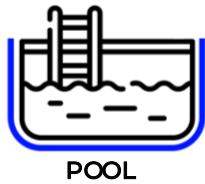
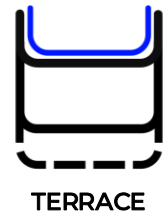


SIM PENGUEN APP-MODIFIED MEMBRANES (-5°C)

Penguen series waterproofing membranes are plastomeric type membranes which is ideal choice for mild climate conditions (moderately cold and hot). These membranes are produced by using bitumen that modified with Atactic Polypropylene (APP). In order to increase mechanical strength of the membrane fiberglass or nonwoven polyester mat is being used. On both sides polethylene film coated as standard, other options (sand,aluminum foil, mineral etc.) possible upon request. It has cold flexibility of -5 °C.

Areas of Usage

On almost every surface of all structures where water can penetrate;

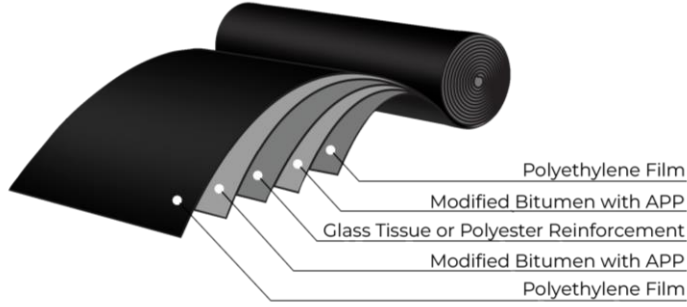


- On walls, curtains, foundations, and flooring that are in contact with the ground;
 - On exterior walls where water can accumulate outside or below the level that water can exert pressure;
 - In water tanks and pools (provided that they are covered)
 - In cisterns, irrigation channels, artificial ponds, concrete canalette, etc.
 - In wet areas such as kitchens, bathrooms, and toilets (provided that they are covered)
 - On flat, sloped, vault, etc. roofs (provided that they are covered)
 - On different surfaces such as wood, reinforced concrete, metal, etc. (provided that they are covered)
 - On the vertical/horizontal surfaces of terraces and balconies (provided that they are covered)
- It can be used as an economic solution in many waterproofing details as a sublayer.

Advantages

- It adheres perfectly to the applied surface and provides excellent adherency.
- When used with appropriate methods and adequate protection is provided, it lasts for the lifetime of the building.
- SIM Penguen APP-Modified Membranes, which are preferred in hot, warm and moderately cold climate zones, there is no melting or flow in hot weather conditions, and no cracking or breaking in cold weather conditions.
- It demonstrates more than enough elasticity required for application with its transverse tensile strength and longitudinal tensile strength against structural movements. It is perfectly resistant to structural movements and differences in expansion.
- It provides an economical and practical solution. It is very easy and quick to apply with a welding torch flame. It can be cut to the desired size and shape using special cutting blades.





Storage

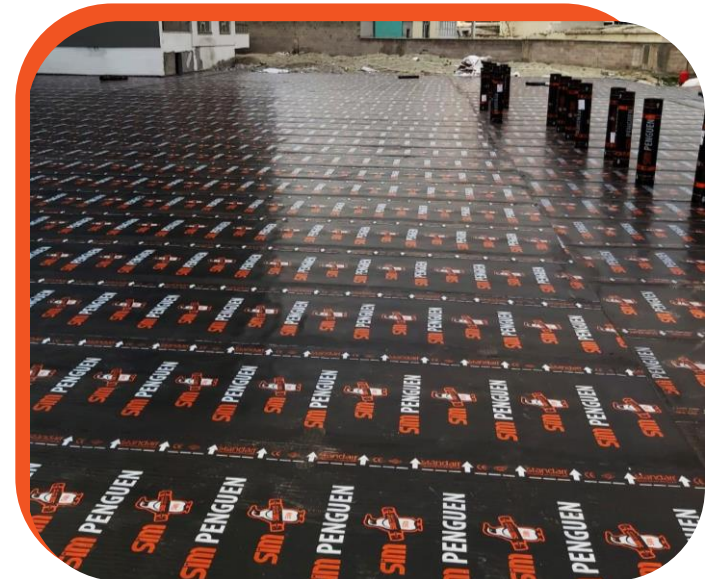
- Bituminous membranes should be stored vertically in enclosed spaces.
- Pallets should be stored without stacking on top of each other and should be stored in a single layer.
- They should not be exposed to direct sunlight and should be protected from sudden temperature changes.

PRODUCT TECHNICAL DATA SHEET

FEATURES	UNIT	TEST METHOD	SC 2000	SC 3000	SP 3000	SP 4000
Reinforcement (Carrier)			Fiberglass	Fiberglass	Polyester	Polyester
Thickness	mm(±0,2)	EN 1849-1	2	3	3	4
Roll Width	m(±0,2)	EN 1848-1	1	1	1	1
Roll Length	m(±0,2)	EN 1848-1	15	10	10	10
Visible Defects		EN 1850-1	None	None	None	None
Joint Slip Resistance	N/5cm	EN 12317-1	≥200	≥200	≥300	≥300
Heat Resistance	C°	EN 1110	≥110	≥110	≥110	≥110
Cold Flexibility	C°	EN 1109	-5	-5	-5	-5
Tensile Strength (Length/Width)	N/5cm	EN 12311-1	300/200	300/200	600/400	600/400
Elongation at Break (Length/Width)	%	EN 12311-1	2/2	2/2	30/30	30/30
Tear Resistance (Length/Width)	N	EN 12310-1	≥110/≥110	≥110/≥110	≥150/≥150	≥150/≥150
Static Load Resistance	kg	EN 12730	≥5	≥5	≥10	≥20
Impact Resistance	mm	EN 12691	≥800	≥1000	≥1500	≥1500
Dimensional Stability	%	EN 1107-1	Max. 0,6	Max. 0,6	Max. 0,6	Max. 0,6
Fire Reaction	Class	EN 13501-1	E	E	E	E
Top Coating			PE	PE	PE	PE
Back Coating			PE	PE	PE	PE

Application

- Bituminous waterproofing membranes should be applied after being kept covered at the application site for 24 hours. (Conditioning)
- Waterproofing applications with bituminous membranes should be carried out at temperatures between a minimum of +5°C and a maximum of +35°C and above, in dry weather conditions and on dry surfaces.
- The surfaces to which waterproofing will be applied should be smooth and even, and they must be cleaned of dirt or residues, such as oil and diesel, that could harm the waterproofing.
- Reinforced concrete surfaces should be primed with SIM Primer and, after drying, the waterproofing membranes should be applied according to the required bonding method.
- All membrane layers should be laid in the same direction. The transverse joints of the first layer membranes should be staggered. The joints of the second layer membranes should be centered over the longitudinal and transverse joints of the first layer.
- The transverse overlaps of the bituminous membrane should be 10 cm, and the longitudinal overlaps should be 15 cm, applied by heating with a welding torch flame.



Standards / Certifications

