

Technical Data Sheet

PT POA Membrane 1050

- Post-applied, special coated, flexible waterproofing membrane -

Product description

PT POA Membrane 1050 is a 2-layer, highly flexible tanking sheet/membrane. The membrane is post-applied and cold applied, no need of heat and open flames during application, but it can be welded if wanted. It consists of a synthetic membrane which is coated with a very special alkaline resistant pressure sensitive adhesive. The adhesive is protected with a silicon foil and must be removed before application. This special design offers a very high safeness against water penetration. Because of the flexible adhesion to concrete it is a permanently active waterproofing membrane. Very high bonding to concrete. The membrane has a self-adhesive strip on one side for side lap overlapping and ensures a perfect bonding between the membranes. The application must be done after the concrete is cured.

Area of application

PT POA Membrane 1050 is used for the waterproofing of exterior basement walls, foundations, tunnels, floor plates, etc. The same product is suitable for vertical and horizontal areas. PT POA Membrane 1050 is usable against pressurized water and infiltration of radon gas.

Properties

- Flexible adhesion to concrete
- Permanently working
- Highly flexible
- Self adhesive coating
- Pressure sensitive adhesive
- Continuous thickness
- Watertight against pressurized water
- Chemical resistant
- Methane gas barrier
- Radon gas barrier
- UV-resistant for >60 days
- Highly crack-bridging
- High elongation
- Not harmful for groundwater
- German engineered

Specification

Base	: flexible synthetic membrane
Self adhesive coating	: pressure sensitive polymer resin
Color	: white
Processing temperature	: > + 5°C to +40°C
Weight	: approx. 1400 g/sqm
Thickness	: approx. 1.2 mm
Length according to DIN EN 1848-2	: 20 m
Width according to DIN EN 1848-2	: 1050 mm

Basic characteristics	Performance	Harmonized technical specification
Visible defects	Pass	EN 1850-2
Dimensions and deviations	Length: 20 m \pm 0.10 m Width: 1050 mm \pm 5 mm Straightness: Passed	EN 1848-2
Thickness and area density	Membrane thickness with coating: 1.34 mm (+10/-5%) Area density: 1550 g/m ² \pm 10%	EN 1849-2
Water tightness Water pressure 60 kPa (0.6 bar)	Passed	EN 1928-A
Water tightness Water pressure 400 kPa (4 bar)	Passed	EN 1928-B
Resistance to impact Substrate Al plate	400 mm	EN 12691-A
Resistance to impact Substrate EPS plate	800 mm	EN 12691-B
Durability – against heat ageing	Passed	EN 1296 and EN 1928-A
Durability – against chemicals	Passed	EN 1847 and EN 1928-A
Compatibility with bitumen	Passed	EN 1548 and EN 1928-A
Tear resistance – longitudinal direction (nail shank)	>500N	EN12310-1
Tear resistance – transvers direction (nail shank)	>650N	EN12310-1
Resistance to static loading Substrate: EPS plate	\leq 15 kg	EN 12730-A
Resistance to static loading Substrate: Concrete	\leq 20 kg	EN 12730-B
Resistance to static loading Substrate: EPS plate	\leq 15 kg	EN 12730-C
Tensile force in longitudinal direction	\geq 120 N/6 mm	EN 12311-2
Tensile force in transverse direction	\geq 140 N/6 mm	EN 12311-2
Tensile strength in longitudinal direction	\geq 13 N/6 mm	EN 12311-2
Tensile force in transverse direction	\geq 14 N/6 mm	EN 12311-2
Elongation at rupture – transverse direction	\geq 650%	EN 12311-2:2013
Elongation at rupture – Longitudinal direction	\geq 500 %	EN 12311-2:2013
Reaction to fire	Class E	EN 13501-1

Peeling strength of bonding to poured concrete (N/mm²)

Clean surface : \geq 1.5

All technical datas are measured in our laboratory.

Please take notice about the safety information and advice given on the safety data sheets and packaging labels.

Delivery form

PT POA Membrane 1050

20 m per roll

Width:

1050 mm

Article-No. 14100021

PT HDPE Tape 150

20 m per roll

Width: 120 mm

Article-No. 14330150

PT DS Tape

30 m per roll

Width: 100 mm

Article-No. 14310100

PT REP Tape

20 m per roll

Width: 100 mm

Article-No. 14320100

Storage

12 months (cool and dry in the original package)

Application

Preparation of the surface

The surface must be dry, sound, even, stable and clean. The substrate to be coated should not have damages, gaps, joints or voids greater than 10 mm. To prevent movements of penetrations such as pipe penetrations for water and electricity during concrete and membrane installation, they have to be fixed and stabilized. Damaged concrete should be renovated with PT Thix Mortar or PT Epoxy Mortar UNI first. Sharp edges have to be removed first.

Material

Horizontal application

PT POA Membrane 1050 must be bonded with the self adhesive coating to the concrete by removing the silicon protection foil.

The overlapping between the membranes is 75 mm. Before removing the siliconized PE-foil (of the side lap overlapping area) ensure that the membranes overlapping zone is positioned correctly. Ensure the back side of each subsequent roll is clean prior fixing and overlapping. Then start removing of siliconized PE-foil to bond the membranes together. Use a heavy roller to ensure a complete perfect bonding between the membranes. Then go ahead with removing of plastic film and press membranes together.

At the overlapping area of end laps the PT POA Membrane 1050 the PT HDPE Tape 150 is used. The roll width of the tape is 150 mm. The tape has to be placed directly above the overlapping area with 75 mm to both sides of membrane (150 mm tape). While removing the first layer of silicone foil the PT POA

Membrane 1050 with the tape must be pressed together. Proceed with removing of siliconized foil and press the tape together with the membrane.

Vertical application

PT POA Membrane 1050 must be bonded with the self adhesive coating to the concrete by removing the silicon protection foil.

The overlapping between the membranes is 75 mm. Before removing the siliconized PE-foil (of the side lap overlapping area) ensure that the membranes overlapping zone is positioned correctly. Ensure the back side of each subsequent roll is clean prior fixing and overlapping. Then start removing of siliconized PE-foil to bond the membranes together. Use a heavy roller to ensure a complete perfect bonding between the membranes. Then go ahead with removing of plastic film and press membranes together.

At the overlapping area of end laps the PT POA Membrane 1050 the PT HDPE Tape 150 is used. The roll width of the tape is 150 mm. The tape has to be placed directly above the overlapping area with 75 mm to both sides of membrane (150 mm tape). While removing the first layer of silicone foil the PT POA Membrane 1050 with the tape must be pressed together. Proceed with removing of siliconized foil and press the tape together with the membrane.

All detailing for example around pipes should be completed with PT Hydro Active-Coating 1C extra, a liquid applied membrane. For better bonding to HDPE a preparation with PT REP Tape 100 is recommended.

Repairs before concrete placement

In case of damaging the PT POA Membrane 1050 during installation it is necessary to repair. PT HDPE Tape can be used to repair any cuts or punctures <10 mm. For larger repairs, cut a sleeve out of PT POA Membrane 1050 to fit across to repair zone. Ensure that the sleeve overlaps a minimum of 150 mm of damaged area.

Note:

Ensure that all overlapping areas are sealed and the siliconized PE-foil is removed in that area.

Do not damage the membrane during construction works.

Formwork removal

It is very important not to remove formwork until the concrete has sufficient compressive strength to develop the required adhesion with PT POA Membrane 1050. Too early removal of all formworks can lead to a displacement of PT POA Membrane 1050 and or concrete damage. A minimum concrete compressive strength of 10 N/mm² is recommended prior removing formwork.

Application areas:



Remarks

The information given in this technical data sheet corresponds to the current state of development and is based on our experience, our knowledge and is non-binding. An investigation has to be done with focus on the respective building project and the area of application. The technical expert advice of proof-tec employees does not exclude the planning or control by an engineer. We are liable within the scope of our general delivery and sales conditions, we are not liable for the application of our materials. The generally accepted rules of technology must be observed. If necessary, preliminary tests have to be carried out.

Version 07/2021

All previous versions of this technical data sheet are not valid anymore and should not be used anymore.