

# Solsheet Self-Adhesive Membrane

## Description:

Solsheet Self Adhesive Membrane is a high performance cold applied membrane designed for use as a damp-proof and waterproof membrane for solid concrete floors, underground structures, reservoir roofs and for internal and external tanking below ground to prevent ingress of water into buildings, and to protect building structures from the effect of chlorides, sulphates and other contaminants in ground water and soil.

Solsheet Self Adhesive Membrane is a two ply, self-adhesive, damp-proof membrane (DPM) comprising a top layer of polyethylene film (0.1mm thick) bonded to a layer of bitumen/polymer adhesive on a release paper, with a selvage strip. The nominal characteristics for the product are given in Table 1 of this data sheet.

After installation the membrane should be covered as soon as possible with a cementitious screed or similar protective layer.



- Roll Size: 1.05m x 19.05m (20m<sup>2</sup>)
- Roll Weight: 33kg.

## Features:

- Cross-laminated film – provides dimensional stability, high tear strength, puncture, and impact resistance.
- Cold applied – no heating via flames or hot bitumen on site.
- Flexible – will accommodate minor settlement and shrinkage.
- Comprehensive range of accessories and ancillary products.
- Capable of resisting a 6 metre head of water when fully supported.
- Full design and on-site technical support.
- Highly resistant to water, water vapour and gases
- Highly resistant to acids, alkalis, and salts
- Easy Application.
- Excellent protection against the surface and groundwater and soluble salts such as sulfates and chlorides.

## Technical Compliances:

- BBA Agrément certificate 23/7030
- CE Marked to BS EN 13967:2012 +A1:2017
- NHBC Standards 2023
- CP 102:1973
- BS 8102:2022

## Typical Uses:

- Internal and External tanking of underground structures.
- Service Reservoir Roofs
- Car Park, Roof's and Plaza Decks.
- Subways, and Retaining Walls.
- General Waterproofing. Foundations & basements
- Lift shafts and pits
- Bathrooms
- Balconies

## Substrate Compatibility

- Wood
- Concrete
- Metal
- Metal
- Other Construction Materials

## Service Life

Under normal service conditions, Solsheet SAM, when fully protected will have a life of the structure in which it is incorporated, provided it is designed, installed and maintained in accordance with this data sheet.

## Technical Data - Table 1

Properties	Test Method	Value
Watertightness to Liquid Water	EN 1928 Method A 60 Kpa	Pass
Resistance to Static Load	EN 12730	≥ 20Kg
Tensile Properties, Maximum Tensile Stress CD	EN 12311-2	≥ 2.5N/mm <sup>2</sup>
Tensile Properties, Maximum Tensile Stress MD	EN 12311-2	≥ 2.5N/mm <sup>2</sup>
Tensile Properties, Elongation at Break MD	EN 12311-2	≥ 130%
Tensile Properties, Elongation at Break CD	EN 12311-2	≥ 130%
Durability of Watertightness against ageing	EN 1847 Method A 60 KPa	Pass
Durability of Watertightness against chemicals	EN 1847 Method A 60 KPa	Pass
Resistance to Impact	EN 12691	≥ 500mm
Resistance to tear (Nail Shank) CD	EN 12310-1	≥ 100N
Resistance to tear (Nail Shank) MD	EN 12310-1	≥ 100N
Reaction to Fire	EN 13501	Class F
Joint Strength	EN 12317-2	≥ 30N
Water Vapour Transmission (Density Flow rate)	EN 1931	0.09 g/m <sup>2</sup> /24hrs
Water Vapour Transmission (Resistance factor, μ)	EN 1931	220000 μ
Length	EN 1848-2	19.05m
Width	EN 1842-2	1.05m
Thickness	EN 1849-2	1.50mm
Mass	EN 1849-2	1650 g/m <sup>2</sup>

## Storage

- The membrane rolls must be stacked on end and stored in dry, well-ventilated buildings, out of direct sunlight, or other major sources of heat.
- Storage conditions should be adjusted before application to bring the temperature of the rolls to within the relevant specified application range.
- The stock should be rotated on a first in/first out basis.
- Solsheet Self Adhesive Membrane is classified as non-hazardous (code of practice CP102 1973). The product is chemically inert and any acids or alkalis present in the subsoil will not affect the membrane.
- It is not recommended for use when exposed to sunlight and general outdoor weather conditions for long periods of time. Weathering will not occur when installed.
- Rolls should be stored undercover.
- Quality control during the laying of the membrane is extremely important.
- The membrane should be protected either through the use of temporary boarding over its whole area or the immediate laying of the concrete slab.

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## Installation

### General

1. All surfaces to which the membrane is applied must have a smooth finish, ie they should be free from cavities, projections and mortar deposits. Surfaces should be dry and free from dust and frost. Concrete surfaces should be dense. Where necessary (ie for dusty or porous substrates), the surface is primed with Solco HP Primer at the recommended coverage rate and allowed to dry. Vertical surfaces must always be primed.
2. Vertical surfaces of brickwork and blockwork should be dry and rendered to provide an even surface.
3. The membrane can be installed in all normal site conditions provided the air temperature is not below 5°C, to prevent the risk of surface condensation.
4. The membrane should be covered by a screed or other protective layer as soon as possible after installation. If blockwork protection is used, care must be taken to avoid damage to the membrane during construction.

### Procedure

1. The release paper is removed prior to applying the membrane to the prepared substrate. As the sheet is laid the membrane must be pressed firmly from the middle to prevent trapping air.
2. The polyethylene strip on the selvages must be removed to expose the bitumen/polymer adhesive to facilitate lapping of the membrane.
3. Overlaps should be at least 50 mm onto the backing film along the roll edges, and at least 100 mm onto the backing film at the roll ends of the membrane. The membrane surface to be overlapped should be dust-free and, to ensure a watertight bond, the upper membrane should be firmly pressed down onto the lower one.

### Applications - Solid concrete floors

1. It is essential that the dpm in the floor is continuous with the damp-proof course (dpc) in the surrounding walls. This is achieved by continuing the membrane up internal wall surfaces to tie in with the dpc. A sand/ cement screed or rot-proof board should be laid immediately after the installation of the dpm to prevent damage.

### External tanking

2. The membrane is applied to the horizontal site concrete base slab then applied to the external face of the structure. A minimum 300 mm wide reinforcement strip of membrane should be placed at internal angles containing a 50 by 50mm fillet or chamfered at external angles where the horizontal surface meets a vertical surface. A protection wall of brickwork, blockwork or protection board should be used against the membrane to protect it from puncture during backfilling.

### Internal tanking

3. The membrane is applied to the horizontal site concrete base slab as well as to the interior face of the external wall. It should be tie in with the dpc and applied down the wall and 300 mm onto the horizontal site concrete base slab. A minimum 300 mm wide reinforcement strip of membrane should be placed at internal angles containing a 50 by 50mm fillet or chamfered at external angles where a horizontal surface meets a vertical surface. The product is applied to the walls to achieve an overlap
4. A wall, preferably concrete, must be constructed immediately after installation to protect the dpm and to resist the action of external water pressure. Where brickwork or blockwork is used it should be set 40mm away from the membrane to enable the space to be thoroughly filled with a sand/cement mortar as the construction proceeds.

### Reservoir roof

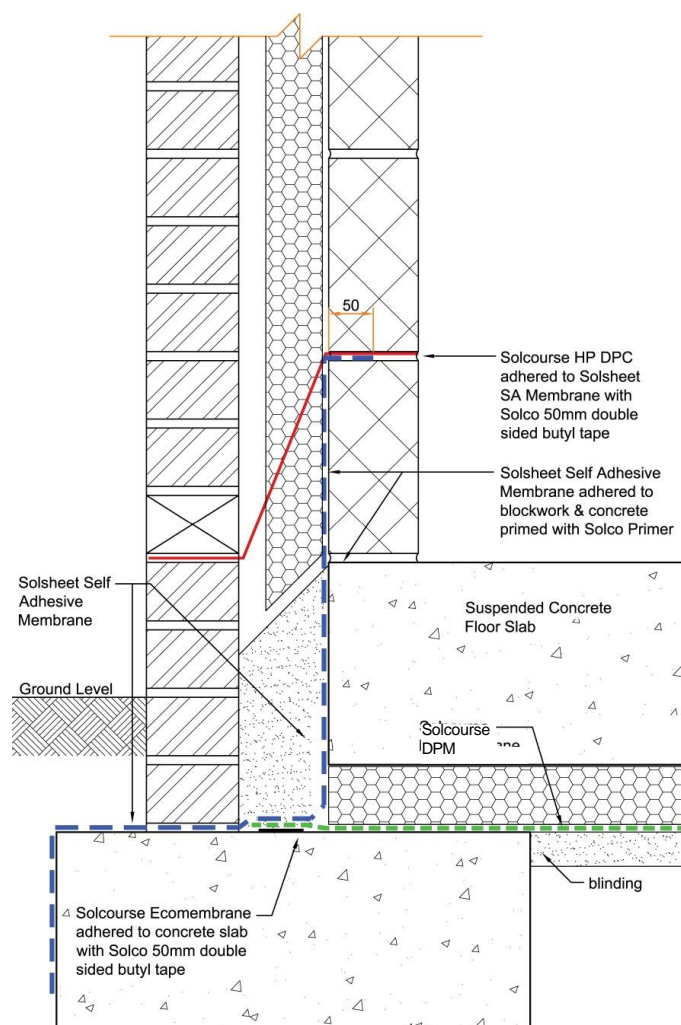
5. The membrane is applied to the substrate as defined in section 13 and protected using 2mm thick Solco HD Bitumen Protection Board, prior to application of protective ballast (such as paving slabs or pea gravel).

### Repair

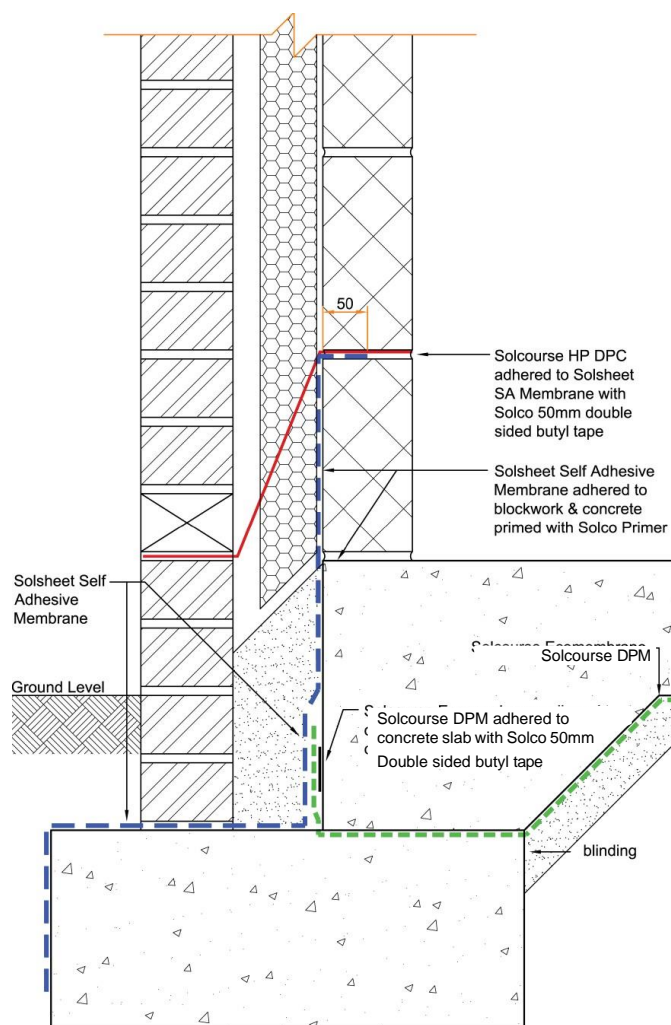
6. In the event of damage the product can be effectively repaired after cleaning by applying a patch of the material, bonded to the damaged area with suitable overlap, prior to the installation of any upper layers.

### Solsheet SAM System Accessories

Solseal HP Primer	A quick drying primer that promotes the adhesion of self-adhesive membranes. Used prior to the application of Solsheet Membranes.	Tubs
Solco HD Protection Board	A tough, reinforced flexible board, used to protect waterproofing membranes against damage by abrasive backfill materials and poured concrete.	Sheets
Solco Protection Fleece	Protects Solco membranes against mechanical or chemical damage. Can be used as a separating layer between membranes and overlying components.	Rolls
Solco XL Jointing Tape	A self-adhesive tape used for securing waterproofing membranes at overlaps edge and corner details.	Rolls
Solco Foil Tape	A single-sided tape for securing laps & joints.	Rolls
Solco Double Sided Butyl Tape	A double-sided synthetic butyl mastic tape, used for bonding waterproofing membranes. Also used for bonding SA membranes to DPCs and fixing other accessories.	Rolls
Solco Top Hats	Form an effective seal where a pipe, duct, or service penetrates Solsheet membranes.	Units



**Typical Slab Edge Detail (Suspended)  
Standard Construction**



**Typical Slab Edge Detail (Ground Bearing)  
Standard Construction**

Please contact our Technical department for project specific application details

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