

# Solsheet GR Self-Adhesive Membrane

## Description:

Solsheet GR Self-Adhesive Membrane is a 1.5mm thick preformed, cold applied, waterproofing system, compatible with concrete, smooth brickwork, and blockwork or screeded substrates and is resistant to those chemicals likely to be present in normal service conditions.

Solsheet GR Self-Adhesive Membrane is manufactured from an aluminium and cross-oriented HDPE film laminated to a layer of rubber modified bitumen adhesive. The advanced backing film suppresses Methane, Carbon Dioxide, and Radon gases. The membrane also offers good conformability for site application.

Solsheet Gas Resistant Self-Adhesive Membrane conforms to the requirements of BS:8485 and BS:8102. Substrates should be primed with Solseal HP Primer prior to application. Solsheet Gas Resistant Self-Adhesive Membrane can be used with Solcourse GR DPC and other Solshield Gas Membranes

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



- **Roll Dimensions: 1m x 20m (20m<sup>2</sup>/roll).**
- **Roll Weight: 34kg.**

## Features:

- Resistant to Rn, CH<sub>4</sub>, CO<sub>2</sub>, and Hydrocarbon Vapours.
- Cross-laminated film – provides dimensional stability, high tear strength, puncture, and impact resistance.
- Polymer modified bitumen coating.
- 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.
- Full design and on-site technical support.
- Specification compliant with BS 8102:2022, BS8485:2015+A1:2019, and EN ISO 15105-1.
- CE Marked.
- Non-hazardous and resistant to dilute acids and alkalis.
- Compliant with NHBC Standards.
- Easy Application.
- Provides high-performance protection against the surface and groundwater and soluble salts such as chlorides, sulfates, alkalis, and acids.

## Typical Uses:

For general waterproofing where gas protection is required:

- Internal and external tanking of underground structures.
- Land-fill sites and specific geographical locations.
- Car parks and retaining walls.
- Subways and lift shafts.

## Substrate Compatibility:

- Wood.
- Brick.
- Concrete.
- Metal.
- Other construction materials.

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## Technical Data:

Property	Test Method	Value
Thickness (Total Thickness)	EN 1849-1	1.5mm
Thickness (Backing Thickness)	EN 1849-1	0.1mm
Thickness (Adhesive)	EN 1849-1	1.4mm
Mass per Unit Area	EN 1849-1	1.3 kg/m <sup>2</sup>
Resistance to Static Load	EN 12730	< 5 kg
Tensile Properties	EN 12311-1	Transverse - 230 N/50mm, 200% Longitudinal - 230 N/50mm, 180%
Watertightness to Liquid Water	EN 1928	Watertight at 2 kPa
Durability of Watertightness (Against Artificial Ageing)	EN 1928	Watertight at 2 kPa
Durability of Watertightness (Against Chemicals)	EN 1928	Watertight at 2 kPa
Resistance to Tear (Nail Shank) (Trans. / Long.)	EN 12310-1	140 N / 150 N
Impact Resistance	EN 12691	200mm
Low Temperature Flexibility	EN 1109	-25°C
Joint Strength	EN 12317-1	Transverse - 160 N Longitudinal - 170 N
Water Vapour Transmission	EN 1931	0.22 g/m <sup>2</sup> /24hrs
Reaction to Fire	EN 13501-1	Pass
Ignitability	BS EN ISO 11952-2	Pass
Fire Rating	EN 13501-1	E/EFL
Storage Temperature Range		+5°C to 35°C
Application Temperature Range		+5°C to +35°C
Service Temperature Range		-20°C to +80°C
Gas Transmission Rate	ISO 15105-1	CH <sub>4</sub> (single layer and joint): <10 ml/m <sup>2</sup> /day CO <sub>2</sub> (single layer and joint): <10 ml/m <sup>2</sup> /day

## 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 GR 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.

## Installation:

### Surface Preparation:

- All surfaces should be smooth, clean, and dry. Loosely adhering material and sharp protrusions should be removed by mechanical means.
- Concrete or renders should be allowed to dry before applying Solsheet membranes.

### Priming:

All vertical surfaces should be primed using Solseal HP Emulsion/Primer. Horizontal surfaces do not require priming where the membrane is covered with a screed, floor slab, etc. Priming should be carried out as follows:

1. Roll can well before use.
2. Apply at the rate of approximately 2m<sup>2</sup>/L. Only prime the area which is to be covered with Solsheet within the next 4 hours. Allow to dry for at least 1 hour until touch dry. Keep free from dust.
3. On very porous surfaces, use two coats of primer.

### Application:

- Internal angles must always be provided with an adequate sand/cement fillet.
- After priming as previously described a 300mm wide reinforcing strip of Solsheet must be applied with 150mm on either side of the centre of the fillet.
- External angles or corners must be provided with a 25mm x 25mm splay and this covered with a 300mm wide strip of Solsheet, applied equidistant from the centre of the splay.

### Horizontal Membrane:

- This should preferably be laid prior to the application of the vertical membrane, adequately protected from damage by a minimum 25mm screed or protection board, with the membrane bonded to the vertical surface at least 200mm above the top of the screed so that the vertical Solsheet can be overlaid.
- If it is not possible to apply the screed over the membrane before the application of the vertical membrane, full and adequate protection must be given to the horizontal membrane to prevent damage.

### Vertical Membrane:

- Cut off the appropriate length of membrane, then starting at the top of the area to be waterproofed, peel off at least 200mm of release sheet and bond the Solsheet firmly to the surface, tucking the end of the material into the appropriate DPC or chase.
- Gradually peel off the remainder of the release sheet downwards, at the same time rolling the material against the surface until the bottom of the wall is reached. At the base, the vertical membrane must
- overlap the horizontal membrane by at least 100mm.
- All subsequent sheets must overlap the preceding sheet by 50mm at the edges and by 100mm at ends. Overlaps must be thoroughly rolled to ensure adequate bonding.

### Backfilling:

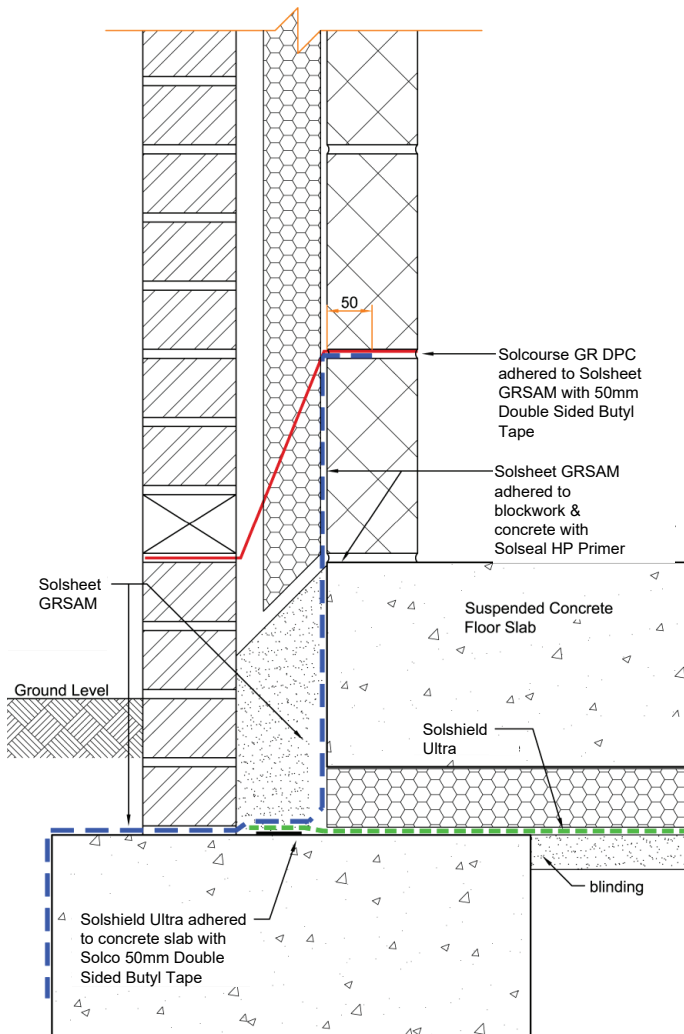
On vertical applications where an abrasive backfill is to be used the Solsheet membrane should be protected by a concrete outer skin, brick skin or Solco HD Protection Board, the latter being held in place by Solco 50mm Butyl tape.

### Precautions:

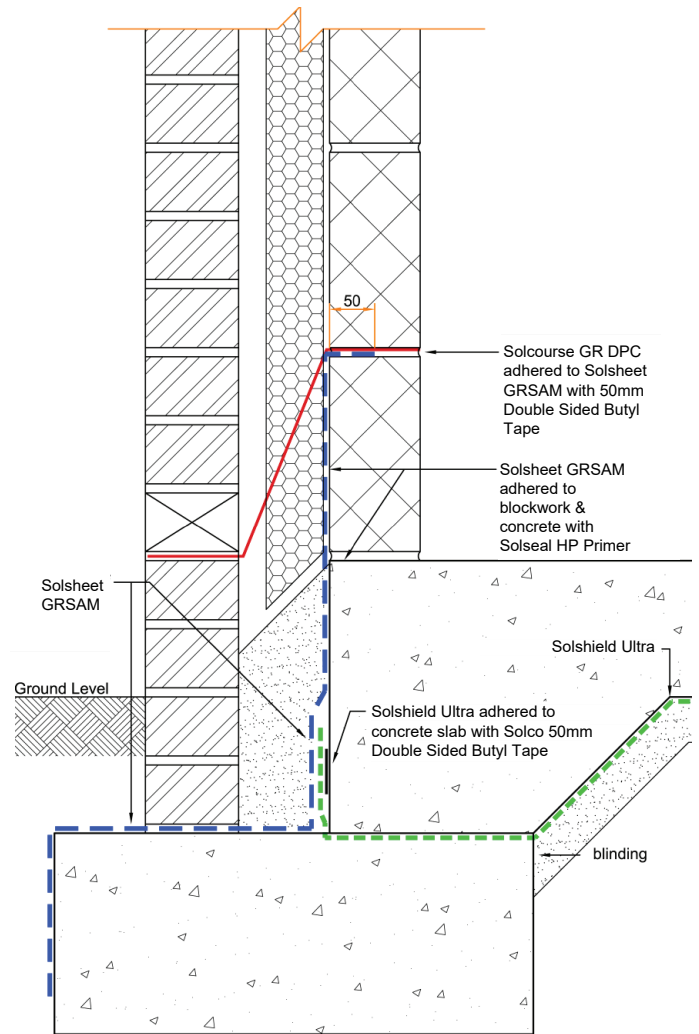
- Solsheet and Solseal HP Primer must not be applied when the surface temperature of the substrate falls below 5°C.
- When a brick-skin is applied to the face of the vertical Solsheet, care must be taken not to damage the membrane and a gap of 40mm should be left, which is filled with sand/cement mortar as work proceeds.
- Only sufficient Solsheet should be laid which can be protected as work proceeds.
- When areas of Solsheet are left exposed for any length of time ensure that all edges are held in place by battens.

## Solsheet GRSAM 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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