

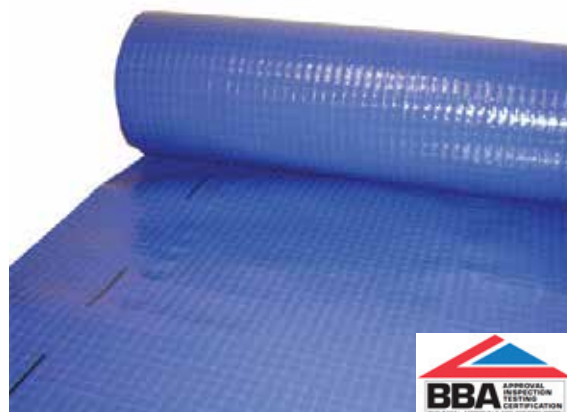
SOLSHEILD Reinforced Gas Barrier



SOLSHEILD Reinforced Gas Barrier is a flexible, loose laid proprietary gas barrier for use on sites with Radon, Carbon Dioxide, low levels of Methane, air & moisture protection system.



- Complies with relevant codes of practice as published by BRE, CIRIA & BSI (BS8485:2015)
- BBA Cert 16/5382, NHBC Compliant & CE Marked
- Suitable for use as gas protection for NHBC Green & Amber 1 situations
- High resistance to puncture.
- Also acts as a damp proof membrane



SOLSHEILD - Gas Protection System

Last Issue Date 31.01.17

Product Description

SOLSHEILD Reinforced Gas Barrier is a multi layer low density reinforced polyethylene membrane, reinforced with a polypropylene reinforcing grid. SOLSHEILD Reinforced Gas Barrier is designed to be suitable for use in areas where Carbon Dioxide, Radon, low levels of methane and an air / moisture protection system.

SOLSHEILD Reinforced Barrier can be used on any site where carbon dioxide, radon, hydrocarbon or VOC vapours are present up to and including CIRIA 665 Situation 6. The membrane is sufficiently resistant to the ingress of harmful gases into a building, although on more heavily contaminated sites a passive or active venting system may be required to dilute the gases down to acceptable levels.

SOLSHEILD Reinforced Gas Barrier is extremely flexible for ease of installation and is robust enough to cope with site conditions. SOLSHEILD Ultra Gas Barrier will also protect against damp and therefore will act as a DPM and satisfy Approved Document C. The Gas Barrier should be designed and specified in line with the most recent regulations and guidance documents. Typical areas where the membrane may be used are, coalfields, contaminated industrial sites, landfill & brown field sites.

Installation

SOLSHEILD Reinforced Gas Barrier and ancillary components should be installed in accordance with IS325:Part 2 of BS CP 102: 1973, BS 8000: Part 4, 1989. Reference should also be made to NHBC guidance notes, BRE Report 211:2015, BS8485 and the Local Authority Ground Gas Handbook.

The membrane should be installed on a sand blinding layer, geotextile protection fleece or smooth concrete float finish. In order to provide a continuous barrier across the cavity SOLSHEILD Reinforced Gas Barrier should be taken through the blockwork and incorporated below the damp proof course cavity tray in the outer leaf.

On more heavily contaminated sites a passive or active venting system may be required to dilute the gases down to acceptable levels and specific design advice should be sought. Where there is risk of hydrostatic pressure this product is not intended for use.

Jointing & Welding

Solshield Gas Barriers have excellent welding properties, we would recommend that particularly in situations where site investigation demonstrates chemicals or harmful gases are present in significant concentrations all of our gas barriers are designed to be heat welded or tape jointed, this ensures the integrity of the membrane at the joint location. Seam welding provides maximum performance integrity and enables installers to complete installations quickly and efficiently.

Apply the double sided butyl tape about 50mm from the edge, leaving the backing paper on. Lay the next width of membrane overlapping the first by 150mm. Remove the backing paper from the double sided butyl tape and join the top sheet to the bottom sheet, by applying pressure with a hand roller. Where the membranes overlap apply the Solco single sided foil tape, equidistant on both membranes (see detail). All service entry points must have airtight seals Top hats and corner pre-forms must be sealed using double sided butyl tape.

Storage & Handling on site

SOLSHEILD Reinforced Gas Barrier 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.

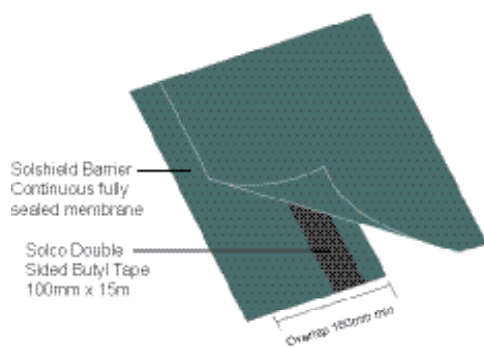
It is not recommended for use when exposed to sunlight and general outdoor weather conditions for long periods of time.

Weathering will not occur when installed.

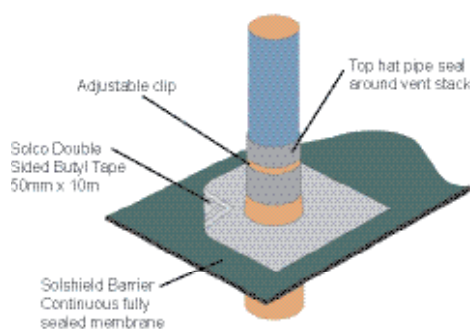
Rolls should be stored undercover.

Quality control during the laying of the membrane is extremely important the membrane should be protected either through the use of temporary protection over its whole area or the immediate laying of the concrete slab.

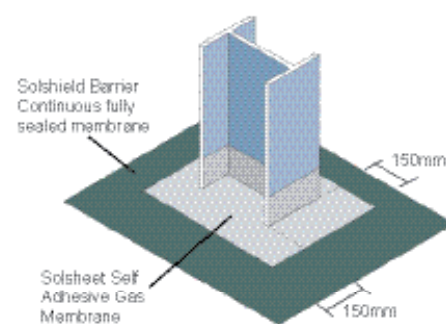
Typical Jointing Details for Solshield Reinforced Gas Barrier



Typical Lap Detail



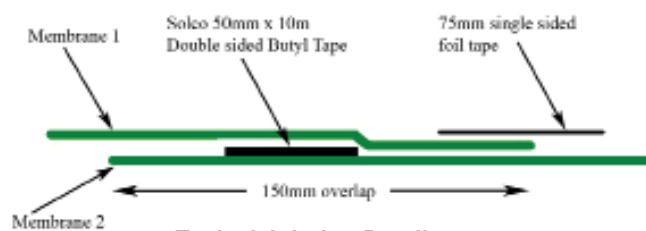
Typical Penetration Detail



Typical Column Detail

Note:

All service entry points must have airtight seals. Top hats and corner pre-forms must be sealed using double sided butyl tape.



Typical Jointing Detail

Venting

SOLSIELD Reinforced Gas Barrier can be used on sites where passive or active ventilation is required. SOLSHIELD Geocomposite Drainage & Venting Mat should be used in conjunction with the relative vent connectors where required. These types of systems are designed on a bespoke site specific nature, please contact us for our design advice.

Technical Data & Test Results

Characteristic	Test Method	Unit	Size
Thickness	EN 1849 - 2	mm	0.5
Width	EN 1849 - 2	M	2.0 / 3.0
Length	EN 1849 - 2	M	50
Weight	EN 1849 - 2	g/m ²	275
Hydraulic Properties			
Water Column Test	EN20811	-	PASS
Resistance to Water Penetration	EN13967, EN1928	-	PASS
Durability of watertightness against ageing	EN1296, EN13967, EN1928		PASS
Mechanical Properties			
Resistance to static loading	EN 12730 B	KG	20
Tensile strength MD	EN 12311 - 1	N/50mm	500
Tensile strength CD	EN 12311 - 1	N/50mm	470
Elongation MD	EN 12311 - 1	%	15
Elongation CD	EN 12311 - 1	%	20
Puncture Resistance (CBR)	EN 12236	KN	1.04
Resistance to tearing (nail shank) MD	EN 12310 - 1	N	400
Resistance to tearing (nail shank) CD	EN 12310 - 1	N	350
Durability & Chemical Resistance			
Radon Permeability	K124/02/95	m ² /s	4.3 x 10 ⁻¹²
Carbon Dioxide Permeability	ISO 15015 - 1	ml/m ² /day/atm	<514
Methane Permeability	ISO 15015 - 1	ml/m ² /day/atm	<514

SOLSHIELD - Gas Protection Systems

Last Issue Date: 23.11.16
Rev C

Gas System Accessories



Product	Description	Sizes	Application	Supply
Solco Foil Backed Jointing Tape	Single sided tape for securing laps & joints	75mm x 50m	Securing Laps & Joints	Rolls
Solco Double sided Butyl Jointing Tape	Butyl Adhesive Tape	50mm x 10m 100mm x 15m	Butyl based double sided tape for joints and laps	Rolls
Solco Top Hat Units	Polymeric	Various	For sealing around penetrations through gas membrane	Each
Solcourse Hydrocarbon DPC	A flexible Tri-polymer DPC	300mm - 1000mm	To prevent the transmission of Radon, CO ₂ , Methane Gas & Hydrocarbons	20m Rolls
Solco Gas Sump Units	Part of the Radon Protection System	430 x 430 x 220mm	Radon Sumps are used in full protection areas, where sub floor depressurisation may be required.	Each
Solco XL Jointing Tape	Reinforcing Tape	100, 150 & 300mm wide	Overband tape self-adhesive	20m Rolls
Solseal Bitumen Primer	Primer for SA Membrane	5L & 25L	Surface Primer	Drums
Solco Protection Boards	Bitumen / Polymeric	3mm thick	For heavy duty use	2m x 1m
Solco P30 Protection Fleece	Geotextile Fleece	2 x 50mt	For pedestrian traffic	Rolls