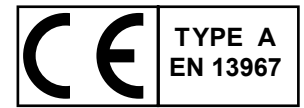




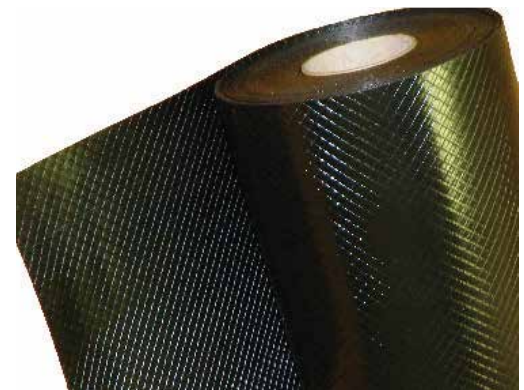
SOLSHIELD

Flexible Hydrocarbon Gas Barrier



SOLSHIELD Flexible Hydrocarbon Gas Barrier is specially engineered tri-polymer construction that provides a highly effective barrier against Radon, Methane, Carbon Dioxide and Hydrocarbon gases

- Complies with relevant codes of practice such as current BRE and CIRIA
- Excellent resistance to chemical and hydrocarbon gases typically found in contaminated industrial sites.
- High quality robust flexible Tri-Polymer Membrane.
- Suitable for hot welding
- Very high puncture & tear resistance.
- Tested to ISO 15105-1 and complies to BS 8485:2015.



Colour	Product Code	Roll Size
Black	SOLSHIELDFLEX	20m x 1.3m x 1mm (other roll sizes available)

SOLSHIELD - Gas Protection System

Last Issue Date 24.11.16

Product Description

SOLSHIELD Flexible Hydrocarbon Gas Barrier is specially engineered tri-polymer construction that provides a highly effective barrier against Radon, Methane, Carbon Dioxide and Hydrocarbon gases. Hydrocarbon gases are formed as a by-product of decomposing organic matter. The Membrane is produced from a uniquely formulated blend of polymers to produce outstanding chemical resistance, mechanical properties, dimensional stability and thermal aging characteristics. The membrane is ideally suited for sites formerly used as coalfield, landfill or industrial sites that previously contained volatile liquids such as petrol stations.

SOLSHIELD Flexible Hydrocarbon Gas Barrier is a very effective gas barrier for the protection of buildings and occupiers from the ingress of gas and moisture. The building regulations require that proper precautions be taken to prevent danger to health and safety when building on gas contaminated land. Solshield Flexible Hydrocarbon Gas Barrier is an advanced high performance flexible membrane suitable for both damp proofing and tanking applications. The membrane has a textured face on one side designed to aid adhesion to cast concrete. This can be used in applications such as: Tanking below ground structures, lift pits, Slab edges and permanent shutter work & Heavy duty reinforced concrete slabs.

SOLSHIELD Flexible Hydrocarbon Gas Barrier is classified as non-hazardous (code of practice CP101 1973). The membrane is chemically inert and will not react with any acidic or alkaline environment it is laid in. SOLSHIELD Flexible Hydrocarbon Barrier has been subjected to accelerated life immersion tests. These tests EN 14414 & EN 14415 require the membrane to be subjected to a range of challenge chemicals at 50 degrees C & then tested to establish the affect they have on the membrane. Full results can be found on the table below.

Installation

SOLSHIELD Flexible Hydrocarbon Gas Barrier must be installed in accordance with the guidelines laid out in Building Research establishment BRE No.414 "Protective measures for housing on gas contaminated land", CIRIA C665 "Assessing risks posed by Hazardous ground gases to buildings", NHBC guidelines and CIRIA C682 the VOC Handbook.

SOLSHIELD Flexible Hydrocarbon Gas Barrier can be used in most common floor constructions and is installed in a similar manor to

damp-proof membrane but with greater attention to joint sealing and under wall sealing. Where there is risk of hydrostatic pressure SOLSHIELD Flexible Hydrocarbon Gas Barrier can be used so long as the jointing is made using the hot weld process and not taped. The membrane should be laid on smooth surface or sand blinding to prevent puncture.

Jointing & Welding

SOLSHIELD Flexible Hydrocarbon Gas Barrier has 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 heat welded as opposed to being 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 XL tape, equidistant on both membranes (see details on page 3).

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

SOLSHIELD Hydrocarbon 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.

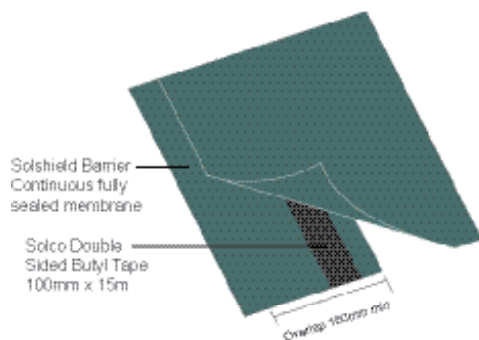
Weathering will not occur when installed with code of practise CP102 1973. Rolls should be stored undercover.

Quality control while laying the membrane is extremely important. The membrane should be protected through the use of temporary boards over the whole area or the immediate laying of the screed. A minimum of 50mm screed is recommended and care should be taken when laying the screed not to stretch, puncture or displace the membrane.

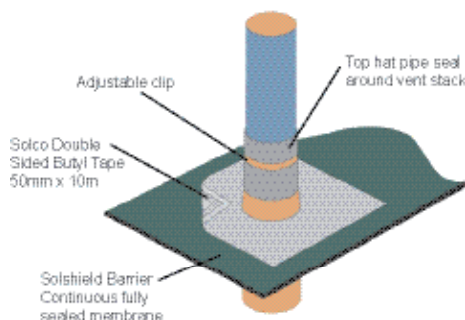
SOLSHIELD Flexible Hydrocarbon Gas Barrier has been tested to ISO 15105-1 and complies to BS 8485:2015.

Technical Performance & Test Data				
Length	EN 1848-2	M	-0% / +10%	20
Width	EN 1848-2	M	-cm/ +2.5%	1.3
Thickness	EN 1849-2	mm	+10% / -10%	1.0
Mass	EN 1849-2	g/M ²	+2% / -2%	921
Tensile Strength - MD	EN EN 12311	N/mm ²	≥MLV	24
Tensile Strength - CD	EN EN 12311	N/mm ²	≥MLV	22
Tensile Elongation - MD	EN EN 12311	%	≥MLV	398
Tensile Elongation - CD	EN EN 12311	%	≥MLV	446
Joint Strength	EN12317-2	N	≥MLV	520
Watertightness 2kPa	EN 1928	-	Pass/Fail	Pass
Resistance to impact	EN 12691	mm	≥MLV	660
Resistance to static loading	EN12730	Kg	≥MLV	20
Resistance to nail tear - MD	EN 12310-1	N	≥MLV	700
Resistance to nail tear - CD	EN 12310-1	N	≥MLV	750
Durability - heat ageing	EN 1926		Pass/Fail	Pass
Durability - Chemical resistance	EN 1847		Pass/Fail	Pass
Water vapour permeability	EN 1932	g/ m ² /day	≥MLV	0.08
Reaction to fire	EN 13501-1	Class	Pass/Fail	F
Resistance to low temperature	EN 495-5		MDV	Pass @ -40
Methane permeability	ISO 15105-1	M ³ / (M ² .day.atm)	MDV	28
Diesel permeability	ISO 6179	g/m ² h	MDV	0.096
Petrol permeability	ISO 6179	g/m ² h	MDV	5.172
Xylene permeability	ISO 6179	g/m ² h	MDV	4.845
Toluene permeability	ISO 6179	g/m ² h	MDV	6.695
Chemical Resistance - Acidic	EN 14414-A	% Elongation	≥MLV	MD - 367 CD - 488
Chemical Resistance - Basic	EN 14414-B	% Elongation	≥MLV	MD - 388 CD - 487
Chemical Resistance - Solvents	EN 14414-C	% Elongation	≥MLV	MD - 388 CD - 518
Resistance to Leaching - Hot Water	EN 14415-A	% Elongation	≥MLV	MD - 377 CD - 404
Resistance to Leaching - Aqueous Alkaline	EN 14415-B	% Elongation	≥MLV	MD - 361 CD - 428
Resistance to Leaching - Organic Alcohol	EN 14415-C	% Elongation	≥MLV	MD - 388 CD - 449
Radon Permeability		M ² /S	≥MLV	9.5 x 10 ⁻¹²

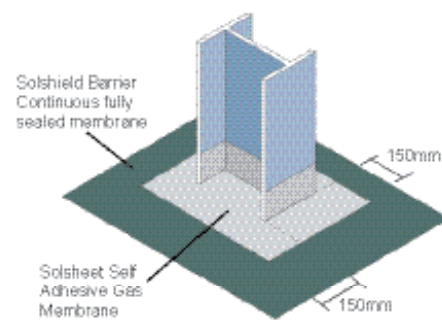
Typical Jointing Details for Solshield Hydrocarbon Gas Barrier



Typical Lap Detail



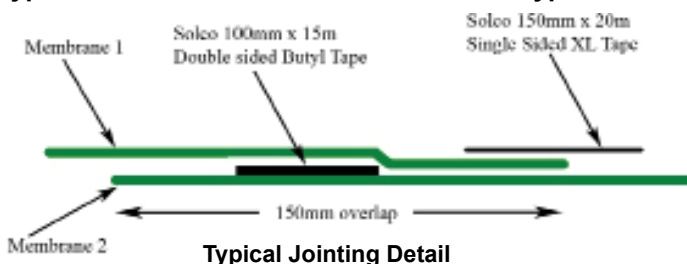
Typical Penetration Detail



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

SOLSHIELD - Gas Protection System

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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