

Solcourse HC DPC

Description:

Solcourse Hydrocarbon DPC is a flexible sheet comprising a mixture of thermoplastic polymers and other additives, extruded into a sheet form with an embossed surface to assist mortar adhesion. Solcourse HC DPC provides protection against the ingress of Hydrocarbons, Methane, Carbon Dioxide, Radon as well as water vapour. Solcourse HC DPC is fully compliant to BS 8485:2015+A1:2019 and ISO 15105-1 test standard.

As part of the extensive testing Solcourse HC DPC has undergone, it was subjected to accelerated life immersion tests. These tests, EN 14414 and EN 14415, require the membrane to be subjected to a range of challenging chemicals at 50°C and then retested to establish any effects these chemicals have had on the integrity of the membrane.

Solcourse HC DPC is suitable for use in walls as a horizontal, vertical or stepped gas-resistant damp-proof course (including cavity trays), in either solid or cavity walls of brick, block, stone or concrete.

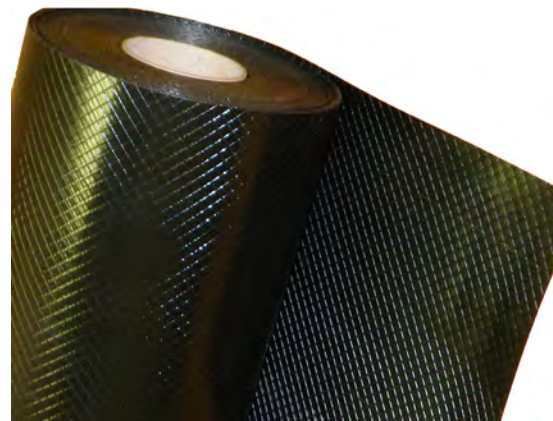
General:

Particular care should be taken to ensure that the product is incorporated into the building as part of a complete system to prevent the ingress or build-up of contaminants; this may require the use of additional methods such as sumps and ventilation.

As with all flexible damp-proof courses, care should be taken to avoid impact damage from sharp objects (eg. chisels) during installation.

For external walls, the DPC should be applied 150mm above the adjoining surface and should be linked to a damp-proof membrane or gas barrier in solid floors. Solcourse DPC should be applied to a fresh bed of mortar, completely free of projections that may puncture the material or impede the DPC from lying flat.

Technical Data:



- Complies to BS 8485:2015+A1:2019.
- CE Marked.
- Outstanding water vapour resistance.
- Gas Resistant to VOC, Rn, CO₂, and CH₄ gases.
- Very high strength, puncture and tear resistance.
- Flexible at low temperatures and good mortar resistance.
- Suitable for site welding.
- Suitable for use on NHBC Amber 1 and 2 sites.

Roll Sizes

100mm to 1200mm x 20m



Property	Test Method	Value
Gas Permeability		
Radon Permeability		9.5 x 10 ⁻¹² m ² /s
Methane Permeability	ISO 15105-1	28 ml/m ² /day/atm
Diesel Permeability	ISO 6179	0.096 g/m ² h
Petrol Permeability	ISO 6179	5.172 g/m ² h
Xylene Permeability	ISO 6179	4.845 g/m ² h
Toluene Permeability	ISO 6179	6.695 g/m ² h

Technical Data (Cont.):

Property	Test Method	Value
Mechanical Properties		
Thickness	EN 1849-2	1.00 mm
Width	EN 1849-2	100-1200 mm
Length	EN 1849-2	20 m
Mass	EN 1849-2	921 g/m ²
Hydraulic Properties		
Water Vapour Permeability	EN 1932	0.08 g/m ² /day
Watertightness (At 2 kPa)	EN 1928	Pass
Mechanical Properties		
Tensile Strength (MD)	EN 12311	24 N/mm ²
Tensile Strength (CMD)	EN 12311	22 Nmm ²
Tensile Elongation (MD)	EN 12310	398%
Tensile Elongation (CMD)	EN 12310	446%
Joint Strength	EN12317-2	520 N
Resistance to Tearing (MD) Resistance	EN 12310 - 1	700 N
to Tearing (CMD) Resistance to Static	EN 12310 - 1	750 N
Load	EN 12730	20 kg
Resistance to Impact	EN 12691	660mm
Resistance to Low Temperature	EN 495-5	Pass at -40°C
Durability and Chemical Resistance		
Durability (Heat Ageing)	EN 1926	Pass
Durability (Chemical Resistance)	EN 1847	Pass
Chemical Resistance (Acidic)	EN 14414-A	Pass
Chemical Resistance (Basic)	EN 14414-B	Pass
Chemical Resistance (Solvents)	EN 14414-C	Pass
Chemical Resistance (Synthetic Leachates)	EN 14414-D	Pass
Resistance to Leeching (Hot Water)	EN 14415-A	Pass
Resistance to Leeching (Aqueous Alkaline)	EN 14415-B	Pass
Resistance to Leeching (Organic Alcohol)	EN 14415-C	Pass

Application:

Installation of Solcourse HC DPC must follow normal good practice for the detailing of a DPC, as set out in PD 6697:2010, and must be in accordance with the relevant clauses of BS 8000-0:2014, BS 8000-3:2001, BS8000-4:1989, BS 8215:1991, and BRE Digest 380.

Buildings in areas of risk from underground gases should be designed and constructed in accordance with BRE Report BR 211 and BS 8485 : 2015.

Care should be taken to avoid impact damage from sharp objects during installation.

Procedure:

- The product must be laid on a wet, even bed of mortar and extend through the full thickness of the wall or wall leaf, including pointing, applied rendering or other facing material.
- Perforations in adjacent courses of brickwork must be completely filled with mortar.
- All lap joints in the DPC must have a minimum 150 mm overlap, be completely sealed with Solco 50mm Double-sided Tape and Solco Foil Tape.
- All surfaces to be joined must be clean and dry.
- Where doubt exists over the suitability of the butyl tape, the product can be welded using hot air or wedge welding equipment. All laps and junctions must be overlapped by 150 mm. The weld width must be a minimum of 40 mm.
- Certain details are difficult to form with the DPC, particularly when bending the material through two angles at the same time. In such cases, care must be taken to achieve a satisfactory seal and, where necessary, Solco HC DPC Preformed Cloaks can be used.
- When using the product with boot lintels or similar constructions, it is installed to follow the lintel profile wherever possible.

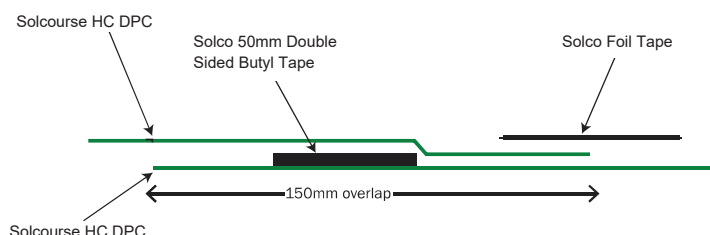
In Block & Beam flooring, the product may be laid on a brick or block wall, provided the following conditions are satisfied:

- The minimum bearing of the beams recommended by the flooring system's manufacturer is achieved.
- The dead and applied loads upon the DPC via the beam do not exceed 2.5 N/mm².
- The surface of the wall onto which the DPC and beam are to be installed is clean, smooth, and free from projections and perforations. Failure to comply with this requirement could lead to the perforation of the DPC. If this requirement cannot be satisfied, the DPC should be laid on an even bed of mortar.
- Any loose aggregate is swept from the wall prior to installation of the DPC and from the DPC prior to the installation of the beam.

Cleaning Cavities:

As with other DPC materials, damage can occur during the cleaning of mortar droppings from the DPC unless care is taken. The following recommendations minimise damage occurring:

- Cavity battens should be used to prevent excessive amounts of mortar droppings from reaching the DPC.
- Mortar droppings should be removed before they have had time to harden.
- Implements such as steel rods should never be used for cleaning.
- The DPC should be examined for damage as work proceeds.



Storage & Handling on Site:

Solcourse HC DPC 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 product. It is not recommended for use when exposed to sunlight and general outdoor weather conditions for long periods of time, and weathering will not occur when installed. Rolls should be stored on end and under cover and on a flat, level surface. Contact with organic solvents must be avoided.

The product is handled and cut using the same techniques as traditional DPCs. It retains sufficient flexibility when used at the lowest temperatures at which walls are normally built and does not become tacky in warm, ambient weather conditions. However, if stored at low temperatures, Solcourse HC DPC should be left in a warm place before use to improve handling.

Difficulties may occur when forming certain details, particularly when bending the product through two angles at the same time. In such cases, care must be taken to achieve a satisfactory seal, and, where necessary, preformed cloaks should be used. Care should be taken at temperatures below 5°C to avoid the risk of condensation on jointed surfaces, which may affect the efficiency of the self-adhesive tapes.

Solcourse HC DPC System Accessories

Solco Top Hats	Form an effective seal where a pipe, duct, or service penetrates Solco membranes.	Units
Solco Double Sided Butyl Tape	A double-sided synthetic butyl mastic tape, used for securing joints and laps in DPC's, Cavity trays & pre-formed Cloaks.	Rolls
Solco Foil Tape	A single-sided tape for securing laps & joints.	Rolls
Solco Venting Accessories	Allows the effective venting of gas from beneath a building.	Units
Solco Int / Ext Corners	Preformed units that ensure protection at corners.	Units
Solco DPC Fixing Strips	Used to surface fix Solcourse DPC cavity trays and preformed cloak units to the inner leaf.	Packs
Solco DPC Fixing Strips (Masonry)	Used for surface fixing Solcourse high performance DPC systems to any solid internal substrate such as brick, stone, and concrete.	Packs
Solco DPC Fixing Strips (Insulation)	Used for surface fixing to the rigid insulation of composite inner skins.	Packs
Solco HP Insulation Fixing	For applications requiring high pull out resistance, or for fixing to poor quality base materials.	Packs
Solco Insulation Panel Fixing	Recommended for securing rigid insulation, EPS, High-Density Rockwool and Composites, to solid base materials.	Packs
Solco Insulation Retaining Washers	Used in conjunction with screws to secure insulation to timber, sheet steel, and other non-standard base materials.	Packs
Solco DPC Blanking Plug	Offers a solution to the problem of sealing holes drilled in bricks and mortar for the installation of DPC Chemicals.	Packs
Solco Soft Washer Fixing	For securing Solco drainage & waterproof applications to concrete etc by hand nailing or shot-firing.	Packs
Solco Membrane Fixing Plugs	Used in damp proofing applications to secure the specialist membranes to the base material - usually brickwork and concrete.	Packs
Solco DPC Joint Support System	Polypropylene Support Boards used in conjunction with Solco Butyl DPC Jointing Tape.	System