Technical Datasheet

Last Issued October 2023

Solcourse HP DPC

Description:

Solcourse HP DPC is a bitumen-free polymeric damp proof course using the most recent advances in polymer technology.

Solcourse HP DPC is a high-performance thermoplastic polymeric DPC that outperforms traditional DPCs with zero creep and is much more competitive than calendered sheet rubber products and the mortar/ DPC bond achieved is stronger than the mortar/ brick bond achieved.

Solcourse HP DPC is suitable for use as a DPC for use in walls in all types of building construction as a horizontal, vertical or stepped damp proof course (including pre-formed cavity trays), in either solid or cavity walls of brick, block, stone, or concrete.

Solcourse HP DPC will not extrude under load, up to the point of failure of the wall, and will not adversely affect the ability of a properly designed and built wall to sustain and transmit compression loads.

Technical Data:

Property	Value
Thickness	0.8mm
Colour	Black
Mass	0.78 kg/m ²
Durability (Artificial Ageing)	PASS
Durability (Alkali)	PASS
Watertightness (2 kPa)	PASS
Resistance to Low Temperature	-40°C
Resistance to Impact	250mm
Resistance to Static Loading	20 kg
Water Vapour Permeability [BS3177]	0.65 g/m ² /day
Water Absorption [BS2782:320A]	0.22%
Tensile Strength of Joint [MOAT 27:1983	235 N
Tensile Strength [BS2782:320A]	11.8 N/mm ²
Elongation at Break [BS2782:320A]	> 500%
Tear Strength [BS2782:360B]	113 N/mm ²



- BBA Agrément Certified & CE Marked.
- Capable of withstanding high superimposed loads.
- Flexible at low temperatures.
- Excellent Resistance to Radon.
- High Strength & Puncture Resistant.
- Suitable for use with Solco Cavity Tray System.
- Compliant to NHBC Standards 2023

Features & Benefits:

- · Provides a clean and watertight joint.
- Specifically designed for housing & commercial applications.
- BBA Agrement Certified (12/4907).
- · No extrusion under heavy loads.
- Offers vastly superior performance to traditional British Standard DPCs.
- Solcourse Jointing Accessories range available.
- Solcourse Standard & bespoke preformed cloaks available.
- The material DPC bond achieved is stronger than the mortar brick bond achieved.
- Boasts excellent resistance to Radon.



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Application:

Installation of Solcourse HP 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, BS 8000-4:1989, BS 8215:1991, and BRE Digest 380.

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

Jointing & Surface Fixing:

- A minimum of 100mm is to be joined/adhered, using Solco 50mm Double Sided Butyl Tape.
- To ensure a satisfactory connection to the inner leaf of cavity construction is made, Solseal HP Primer should be applied prior to the DPC. Solco DPC Fixing Strip and pins should be used in the installation.

Fixing in a Cavity:

- Bond the vertical portion of the cavity tray to the inner leaf with Solco Double Sided Butyl Tape.
- Position the Solcourse DPC fixing strip approximately 5mm below the top edge of the cavity tray. At one end of
 the fixing strip use a bradawl to form a pilot hole (through DPC and tape) into the insulation, using the
- hole in the fixing strip as a guide.
- Push the fixing pin through the fixing strip into the pilot hole. The fir tree portion of the fixing pin will secure the fixing strip and cavity tray in position.
- Repeat for each hole of the fixing strip.

Installation Pratice:

- The DPC must extend through the full thickness of the wall or wall-leaf,
- including pointing, applied rendering, or other facing material.
- The DPC must be laid out on a wet, even bed of mortar (perforations in adjacent courses of brickwork must be closed with mortar) and project 5mm beyond the finished face.
- The DPC must always be sandwiched between wet mortar and not laid dry.
- All lap joints in the DPC must have a minimum of 100mm overlap, be completely sealed with suitable tape, and supported by a suitable joint system in accordance with Solco's instructions.
- The preformed cavity tray units must be used at stop ends and at all corners or change in levels of cavity trays.
- Where used as a cavity tray, the DPC laps must be sealed.

When using the product with boot lintels or similar constructions, it is recommended that the material is installed following the lintel profile, where appropriate.

Damaged areas of the product can be repaired prior to being installed by cutting out and/or replacing the damaged section, ensuring joints are correctly sealed. Once covered, the product cannot be repaired.

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.

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Storage & Handling on Site:

Solcourse HP 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 HP 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 HP DPC 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 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 DPC Lap Adhesive	Used to seal joints between Solcourse high performance DPCs, cavity trays and preformed cloak units.	Cans	
Solco DPC Mastic	Suitable for bonding surface-fixed DPC cavity trays and preformed cloak units to a wide range of common building materials such as block, concrete, or metal.	Tins	
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	

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