DampSafe 809-HP DPC

High Performance Physical Damp Proof Course

Revision: 2.0 - 7th July 2021
Code: 809

INTRODUCTION

DampSafe 809-HP DPC is a high-performance polymeric, radon rated, DPC which will not extrude under load, up to the point of compressive failure of the wall. It will also not adversely affect the ability of a properly designed and built wall to sustain and transmit compression. Available in seven widths from 100 to 900 mm.

DampSafe 809-HP DPC is compatible with all commonly used building materials and is suitable for horizontal, vertical and stepped Damp Proof Courses, including cavity trays, in cavity or solid masonry walls, and is also suitable for extending the floor membrane through internal and spine walls within our Newton CDM waterproofing system.

A range of preformed cloaks for continuation of the DPC to internal and external corners are available, as are preformed cloaks for sill tray stop ends, changes in levels, stop ends, joist and beam ends and electrical pattress boxes.

KEY BENEFITS

- Extremely tough and durable
- Will not deform or extrude under high compressive loads
- Complete system includes cloaks and accessories
- Flexible at low temperatures
- Resistant to ageing and shrinkage
- Effective barrier to water and water vapour and radon
- Bond of DampSafe 809-HP DPC is greater than the bond between mortar and brick

TYPICAL APPLICATIONS

- Horizontal, vertical and stepped damp proof course
- As part of the Newton Newtonite Damp Proofing System when used in conjunction with Newton System 800 damp proofing membranes
- As part of the Newton CDM waterproofing system when used in conjunction with Newton System 500 waterproofing membranes

SUITABLE SUBSTRATE

- Brick & Block
- Stone
- Concrete
- High load insulated wall courses such as Marmox Thermoblock and Foamglas Perinsul

SIZES - 20m ROLL LENGTHS

Size (mm)	Code	Size (mm)	Code
100	809-100	337.5	809-337.5
150	809-150	450	809-450
225	809-225	600	809-600
300	809-300	900	809-900

COLOUR

Black.

LIFE EXPECTANCY

When properly specified and installed, the product will in normal circumstances, remain effective during the lifetime of the building.

ANCILLARY PRODUCTS

- Back-Box Liner - Single Socket - Code BX1
- Back-Box Liner - Double Socket - Code BX2
- Joist Liner - Code BX4
- 110 mm O/D Pipe Sleeve - Code BX3
- Internal/External Corner Units - Code BX5/BX6
- Stop End Units - Code BX7/BX8
- Change in Level Unit - Code BX10
- Sill Tray Stop End Unit - Code BX9
- CDM Joint Tape (30 mm x 22.5 m)- Code A5
- CDM OverTape (100 mm x 20 m) - Code A8

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Opening Hours:
Monday to Thursday 8:00am - 5:30pm
Friday 8:00am - 5:00pm

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TECHNICAL DATA

Features	Result	Units	Test Method
Material	Embossed thermoplastic polymer		
Colour	Black		
Visible faults	None		BS EN 1850-2
Length (+/-5%)	20	m	BS EN 1848-2
Width (+/-5%) (mm)	100, 150, 225, 300, 450, 600, 900		BS EN 1848-2
Thickness (+/-5%)	0.75	mm	BS EN 1848-2
Density (+/-5%)	830	g/m^2	BS EN 1848-2
Installed Performance	**Result**	**Units**	**Test Method**
Resistance to static load (10 mm steel ball)	20	kg	BS EN 12730
Resistance to impact			BS EN
Shear resistance of joints - longitudinal	100	N/mm^2	BS EN 12317-2
Shear resistance of joints - traverse	250	N/mm^2	BS EN 12317-2
Durability (Alkali, Annex C - 50% elongation)	Pass		BS EN 12113-2 / 1928
Elongation at break - longitudinal	810	%	BS EN 12311
Elongation at break - traverse	840	%	BS EN 12311
Resistance to tearing (nail shank) - longitudinal	170	N	BS EN 12310-1
Resistance to tearing (nail shank) - traverse	180	N	BS EN 12310-1
Flexibility at low temperatures	≤ 40	^oC	BS EN 495-5
Durability against heat aging - 60 kPa	Pass		BS EN 1928 / 1296
Radon permeability	18×10^{-12}	m/s	K124/0295
Radon transmittance	21×10^{-12}	m/s	K124/0295
CO^2 permeability	1.59×10^{-16}	$m^2/s/Pa$	ISO 2782:1995
Water vapour diffusion resistance -Sd - value	350	m	BS EN 3177
Reaction to fire (Euroclass)	E		BS EN 13501-1

The above data, even if carried out according to regulated tests are indicative and may change when specific site conditions vary.

SPECIFICATION

Newton Waterproofing Systems work in partnership with RIBA NBS and NBS Source, which integrates into project workflows, providing all product data from Newton's NBS BIM Objects, NBS Plus Clauses and RIBA Product Selector into one single source of product information.

NBS Source also hosts a large selection of Newton case studies, as well as product literature and certifications. A wide range of drawings are available on our website.

CONSTRUCTION

The construction should conform with current Building Regulations, British Standards and relevant Codes of Practice.

TRAINING & COMPETENCY OF USER

The product is designed to be installed by a competent general builder, or a contractor, experienced with this type of product. When used as part of the Newton CDM cavity drain waterproofing system, installation should be by/or supervised by, the Newton Specialist Waterproofing Contractor who is installing the waterproofing system.

SPECIALIST TOOLS REQUIRED

No specialist tools are required.

PACKAGING

The product is delivered to site in rolls wrapped in pre-printed wrappers. The rolls are packed on pallets with polythene wrapping.

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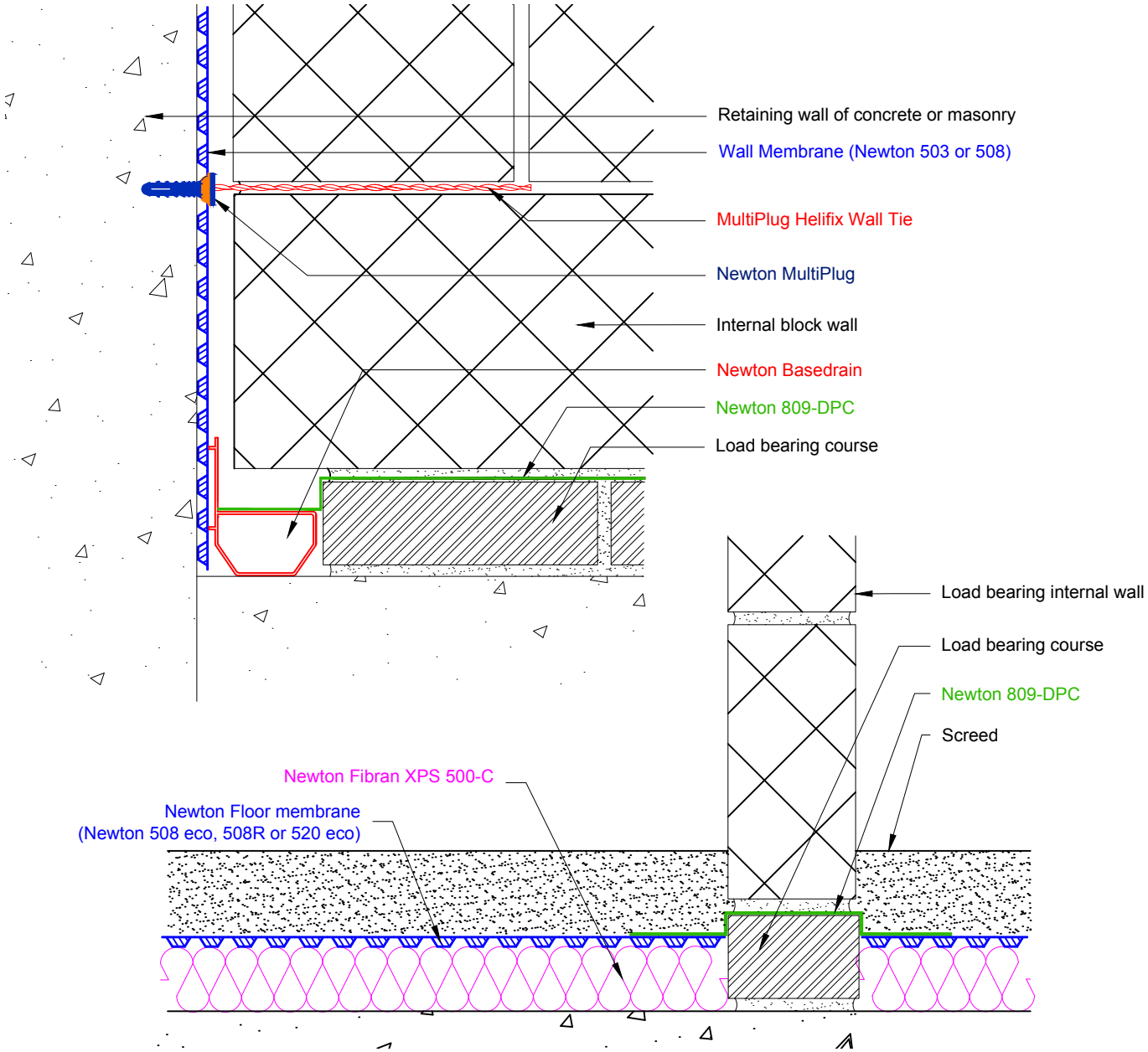
TYPICAL DETAIL



STORAGE

Rolls must be stored on end and under cover.

Care must be taken to ensure that the DPC does not become contaminated by hydrocarbon or other organic solvents.

LIMITATIONS

DampSafe 809-HP DPC is not able to resist hydrostatic pressure. Do not use as a barrier to resist ground water.

PREPARATION & CLEANING

All surfaces should be clean, dry and free from frost, grease and loose materials. Clean off surplus mortar from joints on cavity faces as the work proceeds.

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

- Cavity battens should be used to prevent excessive amounts of mortar droppings reaching the damp proof course
- Mortar droppings should be removed before they have had time to harden
- Implements such as steel rods should never be used for cleaning
- Damp proof courses should be examined for damage as work proceeds

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INSTALLATION

DampSafe 809-HP DPC should be installed in accordance with the good practice recommendations as conveyed in the relevant clauses of the BS 5628: part 3 2005, BS 8000: part 3 2001, and BS 8215:1991.

Installation practice

The following installation practices are essential:

- 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 on a wet, even bed of mortar, and perforations in adjacent courses of brickwork must be closed with mortar, and project 5 mm 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 100 mm overlap and be completely sealed with CDM Joint Tape. If required they should be further sealed with CDM OverTape. Joints must always be supported
- DampSafe 809-HP DPC Preformed Cavity Tray Units must be used at stop ends, and at all corners or changes in levels of cavity trays
- Where used as a cavity tray, the DPC laps must be sealed
- Better joint performance is achieved if the laps are warmed with a heat-gun
- When using DampSafe 809-HP DPC with boot lintels or similar constructions, it is recommended that the material is installed following the lintel profile, where appropriate

In beam-and-block flooring, DampSafe 809-HP DPC may be laid dry on a brick or block wall, provided the following conditions are met:

- The minimum bearing of the beams recommended by the flooring systems manufacturer is achieved
- The dead and applied loads upon the DPC via the beam do not exceed 2.5 N/mm^2
- 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 perforation of the DPC. If this requirement cannot be met, 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

CUTTING & DETAILING

The product is handled and cut using the same techniques as traditional flexible damp proof courses. It retains sufficient flexibility when used at the lowest temperature at which walls are normally built and does not become tacky in warm, ambient weather conditions.

Difficulties may occur when forming certain details, particularly when bending the DPC 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 taped joint. Use a heat-gun to remove the surface moisture.

HEALTH & SAFETY

Product should only be used as directed. We always recommend that the Safety Data Sheet (MSDS)is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The MSDS is available upon request from Newton Waterproofing Systems or online via our website. Please see contact details below.

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CE 21	JN NEWTON WATERPROOFING	Newton Waterproofing Systems Newton House 17-20 Sovereign Way Tonbridge Kent TN9 1RH	809-DPC EN 14909:2012 1434 Flexible sheets for waterproofing. Plastic and rubber damp proof courses.

Essential Characteristics	Declared Performance	Units	Test Standard	Harmonised Standard
Resistance to static load (10 mm steel ball)	20	kg	BS EN 12730	EN 14909:2012
Resistance to impact			BS EN	
Shear resistance of joints - longitudinal	100	N/mm^2	BS EN 12317-2	
Shear resistance of joints - traverse	250	N/mm^2	BS EN 12317-2	
Durability (Alkali, Annex C - 50% elongation)	Pass		BS EN 12113-2 / 1928	
Elongation at break - longitudinal	810	%	BS EN 12311	
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Durability against heat aging - 60 kPa	Pass		BS EN 1928 / 1296	
Radon permeability	18×10^{-12}	m/s	K124/0295	
Radon transmittance	21×10^{-12}	m/s	K124/0295	
CO^2 permeability	1.59×10^{-16}	$m^2/s/Pa$	ISO 2782:1995	
Water vapour diffusion resistance -Sd - value	350	m	BS EN 3177	
Reaction to fire (Euroclass)	E		BS EN 13501-1	