

## IKO HYLOAD PERMABIT DPC

### PRODUCT INFORMATION

IKO Hyload Permabit DPC system is a flexible bitumen polymer sheet material, used within masonry walls to prevent passage of moisture from the ground and at all levels as a cavity tray to prevent the downward movement of water. Due to its range leading mortar bond, IKO Hyload Permabit DPC is also widely used to provide protection under situations of minimal loading such as parapet walls, under throated coping stones and under brick-on edge detailing for both solid masonry and cavity wall construction.

| Roll Width | Product Code |
|------------|--------------|
| 100mm - 1m | 345*****     |



### USE

IKO Hyload Permabit DPC is used as a horizontal, vertical or stepped damp proof coursing system and is also suitable for cavity trays within masonry cavity wall construction. It is routinely specified within minimal load situations such as under coping stones, and parapet walls.

### INDEPENDENT ACCREDITATION



The product carries a Declaration of Performance Certificate and is assessed under the above Harmonised Standard.

### FEATURES & BENEFITS

**Proven Performance** – tried and tested, the product achieved BBA certification in 1988, and has been used by the construction industry for over 25 years.

**Developed Components** – as part of the IKO Hyload brand, the product has a full range of system components.

**Excellent under Compressive Load** – the system does not extrude under load under normal working conditions.

**Excellent Mortar Bond** – when installed in between fresh beds of mortar, the product displays excellent mortar adhesion and bond properties.

**Durable** – under normal working conditions, the DPC material will remain effective for the design life of the building.

### PERFORMANCE & COMPOSITION

|   |                                  |
|---|----------------------------------|
| <b>Composition:</b>                                 | Bitumen Polymer                  |
| <b>Form:</b>  | Roll                             |
| <b>Colour:</b>                                      | Black                            |
| <b>General Dimension Data</b>                       |                                  |
| <b>Thickness:</b>                                   | 1.25mm                           |
| <b>Weight:</b>                                      | 1.6kg/m <sup>2</sup>             |
| <b>Roll Length:</b>                                 | 20m                              |
| <b>Roll Width:</b>                                  | 100mm – 1000mm                   |
| <b>Performance Data</b>                             |                                  |
| <b>Water tightness (EN 1928):</b>                   | 2kPa for 24 hrs                  |
| <b>Maximum Tensile Force (EN 12311-1):</b>          | ≥ 3 Mpa                          |
| <b>Elongation (EN 12311-1):</b>                     | ≥ 110%                           |
| <b>Resistance to Static Loading (EN 12730 (B)):</b> | 20kg (Concrete)<br>5kg (EPS)     |
| <b>Resistance to Impact (EN 12691):</b>             | 500mm (Aluminium)<br>150mm (EPS) |
| <b>Resistance to Tearing (EN 12310-1):</b>          | Long ≥ 8.63N/mm                  |
| <b>Flexibility at low Temperature (EN 1109):</b>    | -15°C                            |
| <b>Durability - ageing (EN1296):</b>                | Pass                             |
| <b>Durability - alkali (Annex C):</b>               | Pass                             |

## **SPECIFICATION**

NBS Clauses can be made available for Common Arrangement Work Sections:

### **F30 – Accessories/Sundry Items for Brick/Block/Stone Walling**

All construction detailing and specification should conform to UK Building Regulations, relevant Codes of Practice and British Standards. In particular it is recommended that reference is made to the relevant parts of:

BS 8215:1991 Code of Practice for design and installation of damp-proof courses in masonry construction

BS 8000-3:2001 Workmanship on building sites. Code of Practice for masonry

BS EN 1996-1-1:2005+A1:2012 Eurocode 6: Design of masonry structures – Part 1-1: General rules for reinforced and unreinforced masonry structures

PD 6697:2010 Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2.

Where required by building warranty providers i.e. NHBC, LABC, etc. installers and those undertaking specifications should seek guidance from Technical Standards as issued by the provider in addition to the above.

If required, please consult with IKO Technical Services.

## **SYSTEM COMPONENTS**

IKO have a range of essential system components, specifically tailored to facilitate the multiple uses of the IKO Hyload Permabit DPC system.

The following represents the system components available as part of that range:

**IKO Hyload DPC Jointing Tape** – a black, double-sided bituminous tape in 100mm x 10m rolls. Used for bonding overlaps in DPC material and DPC to IKO Hyload Pre-formed Cloak Units.

**IKO Hyload DPC Joint Support Board** – is a twin walled polypropylene reinforced support board, which can be bent to form the required profile. Employed directly under joints in the system, the board provides resistance when applying pressure during the joints creation.

**IKO Hyload Copeclose** – is a tough flexible cavity closure unit consisting of a semi rigid support board bonded to a section of polyethylene foam insulation, which locates the unit into the cavity. This product is employed directly beneath horizontal DPCs occurring under coping stones and pervious capping sections over cavity wall construction in order to provide support and prevent sagging of the DPC material.

**IKO Hyload DPC Fixing Strip** – is a 29mm wide x 2mm thick x 2m long corrosion resistant rigid plastic strip, used specifically to provide surface fixing solutions in cavity tray formation. Pre-drilled at set 150mm centres, the component is complemented by fixings pins specific to the substrates of masonry and insulation.

**IKO Hyload DPC Fixing Pins For Masonry** - used with IKO Hyload DPC Fixing Strip, IKO Hyload DPC Fixing Pins for masonry are corrosion resistant and can be used for surface fixing IKO Hyload high performance DPC systems to any solid internal substrate such as brick, stone and concrete. IKO Hyload DPC Fixing Pin bodies are made from moulded nylon and the drive pins are made from polycarbonate. Drill a clearance hole 6mm diameter by 45mm deep into substrate and when the drive pin is located, the barbed portion of the fixing pin body expands giving a secure grip and pull out resistance.

**IKO Hyload DPC Fixing Pins For Insulation** - used with Hyload DPC Fixing Strip, Hyload DPC Fixing Pins for insulation are corrosion resistant and can be used for surface fixing to the rigid insulation of composite inner skins. Using a tool such as a bradawl, a pilot hole should be formed prior to inserting the push fit pin. The fir tree portion securely locates into the rigid insulation.

**IKO Hyload DPC Mastic** - a thick synthetic rubber mastic adhesive with gap filling properties up to 6mm. Supplied in 2.5L tins or 400ml cartridges, IKO Hyload DPC Mastic is suitable for bonding surface-fixed IKO Hyload high performance DPC cavity trays and preformed cloak units to a wide range of common building materials such as block, concrete or metal.

**IKO Hyload Pre-formed Cloak Units** – covering all aspects of detailing from stop ends to complex and awkward interface detailing, pre-formed cloak units reduce on site detailing work to a rapid position and fix operation, whilst providing consistent quality of work throughout.

Ultrasonic welding technology allows the semi-rigid polymeric cloak material to be formed into a vast number of profiles and shapes.

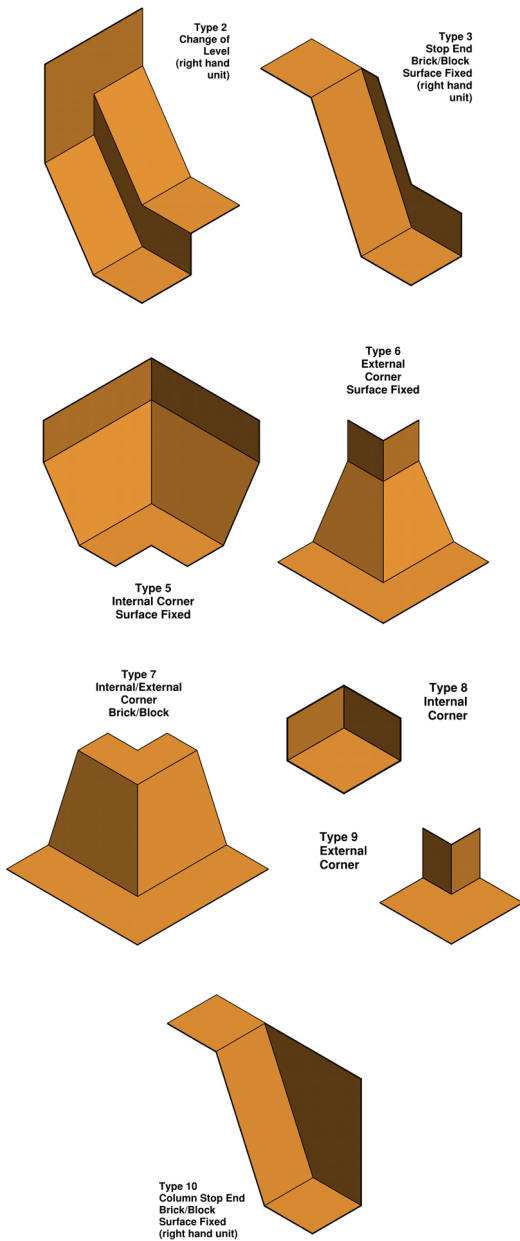


Figure 1 – Hyload Pre-formed Cloak Units

## SITE STORAGE

### GENERAL

DPC material and any product ancillary to the system should be stored in the dry, under cover, and protected against damage.

DPC rolls should be stored on their ends on a flat and stable surface, and stacking above 1m high should be avoided.

Materials should be kept away from direct sources of heat.

Check all labels on adhesives for any particular storage recommendations, and for any hazards relating to that specific product.

## 24 HOURS PRIOR TO WORK

DPC material should be checked to ensure that they conform to the project specification prior to removal from the main storage area.

Store a sufficient number of rolls of DPC and any adhesive tapes for the next day's use in a warm place prior to use. This will ensure the desired performance is achieved i.e. good flexibility and tape adhesion.

## IMMEDIATELY PRIOR TO WORK

Storage of the product at the place of work should be no less satisfactory than that experienced within the main storage areas to prevent damage immediately before use i.e. flat, dry, clean and free from contaminants.

When being used around the work area, rolls should **not** be stacked irrespective of their size.

In periods of inclement weather, DPC materials and any components should be returned to the conditions of the main storage area as soon as practicable.

## CONSTRUCTION

### APPLICATION

The IKO Hyload DPC system, when correctly specified and installed provides a satisfactory horizontal, vertical or stepped damp proof coursing system and is also suitable for the on-site creation of cavity trays within masonry cavity wall construction.

## LINEAR DAMP PROOF COURSE

IKO Hyload DPC systems are suitable for inclusion into solid single skin masonry walls or in instances which do not employ cavity trays i.e. separate horizontal DPC within each constituent masonry leaf.

When installing linear DPC, it is essential that:

- The DPC material is laid in continuous lengths as far as practicable. Instances where the DPC must be lapped, installation must achieve 100 mm overlap as a minimum with overlaps at angles i.e. corners, etc. achieving the full width of the receiving masonry leaf;
- The DPC width is equal to that of the masonry leaf into which it is being installed;
- The DPC **must** be sandwiched between even beds of wet mortar, receiving a further course of masonry units on mortar on the DPC. The weight of these immediate courses helps to develop good adhesion between the masonry units, the mortar and the DPC (Figure 2);
- The edge of the DPC remains visible through the completed mortar joint inclusive of pointing, finishes, etc. to a position which leaves it at least flush with the outer surface of the wall;

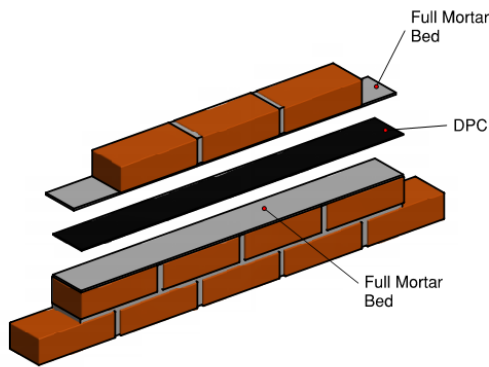


Figure 2 – Hyload DPC bedding

- Underneath coping stones or units that create an overhang to the wall surface below, the edge of the DPC should project no less than 5mm beyond the face of the wall surface (Figure 3);
- In the construction of cavity walls where there are separate DPCs within each masonry leaf, the edge of the DPC must not project into the cavity as this can provide a place for debris to lodge and create a potential for moisture to bridge the cavity.

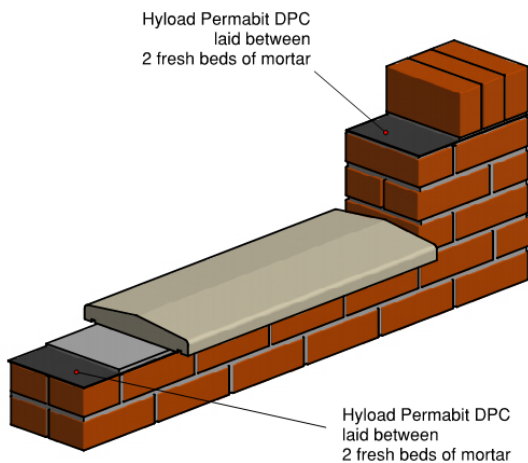


Figure 3 – Coping Stones and Brick-on-Edge Detailing

## CAVITY TRAYS

When constructing cavity walls, bridges that create the opportunity for water to cross the cavity from the external masonry leaf to the inner leaf can occur. Typically such instances are found above window and door openings, above ducts and horizontal cavity barriers.

In these situations Hyload DPC systems can be used to create cavity trays, which divert this water back to the external leaf and out through masonry via weep vents within the external leaf.

When installing cavity trays, it is essential that:

- They are created in continuous lengths, as far as practicable.
- All overlaps are 100 mm and **must** be fully sealed using Hyload DPC Jointing Tape;
- They are fully supported at joints with either Hyload Joint Support Boards or Hyload Pre-formed Cloak Units;
- When they are intermittent or cover isolated areas of detailing i.e. lintels, ducts, etc. they cover the full extent of the obstruction within the cavity, extending 150 mm beyond ends of bridged cavity positions and incorporate stop ends to create a defined termination;

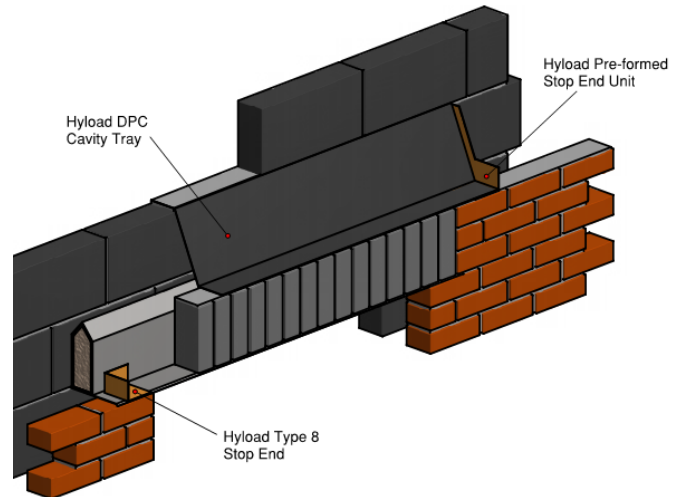


Figure 4 – Typical Hyload Cavity Tray above lintel position

- They are securely fixed to maintain their position and profile across the cavity, and step up towards the inner leaf a minimum of 150mm;
- The DPC passing through the respective masonry leaves **must** be sandwiched between even beds of wet mortar, receiving at least one further course of masonry units on mortar on the DPC. The weight of this immediate course helps to develop good adhesion between the masonry units, the mortar and the DPC;
- On the outer face of the outer masonry leaf, the edge of the DPC must remain visible through the completed mortar joint to a position which leaves it at least flush with the outer surface of the wall.

## CLEANING

### DURING INSTALLATION

During the process of installation, damp proof course materials can incur damage from careless cleaning operations.

Recommendations to prevent damage, particularly for cavity tray installations, are:

- To utilise cavity battens to prevent excessive amounts of mortar reaching the DPC;
- Remove mortar droppings before hardening occurs;
- To ensure that implements such as steel rods **are not** used for cleaning.

As the DPC system cannot be repaired once covered, it is strongly recommended that work is regularly inspected for damage and rectified prior to continuing works. In most instances, it is necessary to cut out the damaged sections and replace where necessary, utilising the aforementioned jointing materials and techniques.

## **AFTER INSTALLATION**

Due to the concealed nature of DPC work, it is not necessary to conduct any special tasks for the aftercare of DPC after masonry is completed.

Any clean down operations conducted to the masonry itself should be done so in a manner which does not adversely affect the DPC material.

## **DURABILITY**

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

## **DISCLAIMER**

Whilst every precaution is taken to ensure that the information given in this literature is correct and up to date it is not intended to form part of any contract or give rise to any collateral liability, which is hereby specifically excluded. IKO reserve the right to amend and/or withdraw this document without notice.

Intending purchasers of our materials should therefore verify with the company whether any changes in our specification, application details, withdrawals or otherwise have taken place since this literature was issued.