IKO HYLOAD TRADE DPC

PRODUCT INFORMATION

IKO Hyload Trade Damp Proof Course system is a flexible polymeric sheet material, used within masonry walls to prevent passage of moisture from the ground and at all levels as cavity tray to prevent the downward movement of water.

The product can also be used as part of a designed Low Risk Gas Protection System for radon, carbon dioxide and methane.

Roll Width	Product Code
100mm - 1m	316*****

USE

IKO Hyload Trade DPC is used as a 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.

The product does not currently conform to the requirements of ground gas protection measures designed to BS8485:2015

FEATURES & BENEFITS

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

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

Robust – excellent resistance to impact damage, under normal working conditions.

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

PERFORMANCE & COMPOSITION

Composition:	Polymeric sheet
Form:	Roll
Colour:	Black
General Dimension Data	
Thickness:	0.9mm
Weight:	1.26kg/m²
Roll Length:	20m
Roll Width:	100mm – 1000mm
Performance Data	
Water tightness (EN 1928):	2kPa for 24 hrs
Gas Transmission Rate:	
Carbon Dioxide (ISO 2782)	5400ml/m2.day
Methane (ISO 2782)	629ml/m2.day
Maximum Tensile Force (EN 12311-1):	≥ 3 Mpa
Elongation (EN 12311-1):	≥ 110%
Resistance to Static Loading (EN 12730 (B)):	20kg (Concrete) 5kg (EPS)
Resistance to Impact (EN 12691):	500mm (Aluminium) 150mm (EPS)
Resistance to Tearing (EN 12310-1):	Long ≥ 8.63N/mm
Flexibility at low Temperature (EN 1109):	-15°C
Characteristic Flexural Strength (DD 86-1:1983):	0.13N mm^{-2}
Durability - ageing (EN1296):	Pass
Durability - alkali (Annex C):	Pass

INDEPENDENT ACCREDITATION

BBA BRITISH BOARD OF AGREMENT
TECHNICAL APPROVALS FOR CONSTRUCTION
Agrément Certificate
No 95/3133

CE
0013-CPD-537588

The product carries a British Board of Agrement certificate, and is CE marked.

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.
BRE Report BR211 (2015) Radon, Protective measures for new buildings.

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 Trade 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 Lap Adhesive – a brush applied synthetic rubber resin mixture for bonding laps in DPC or 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 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.

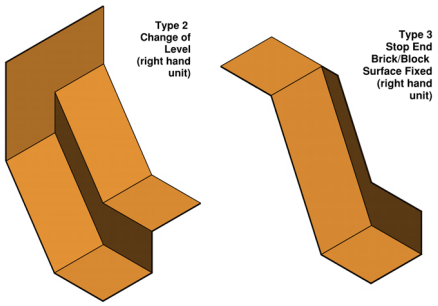
IKO Hyload DPC Fixing Pins For Masonry – used with IKO Hyload DPC Fixing Strip, IKO Hyload DPC Fixing Pins for Masonry are corrosion resistant and can be used for surface fixing IKO Hyload high performance DPC systems to any solid internal substrate such as brick, stone and concrete. IKO Hyload DPC Fixing 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 IKO Hyload DPC Fixing Strip, IKO 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:



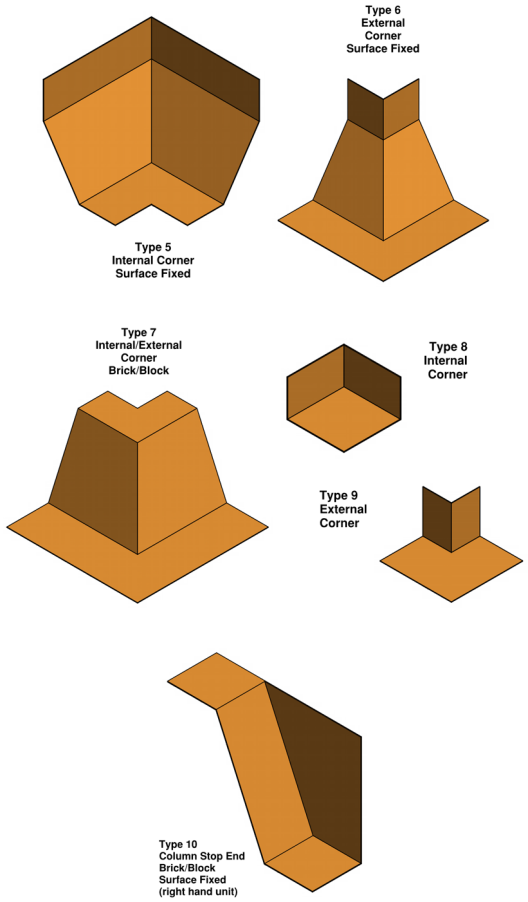


Figure 1 – Standard Hyload Pre-formed Cloak Units

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 COURSES

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.

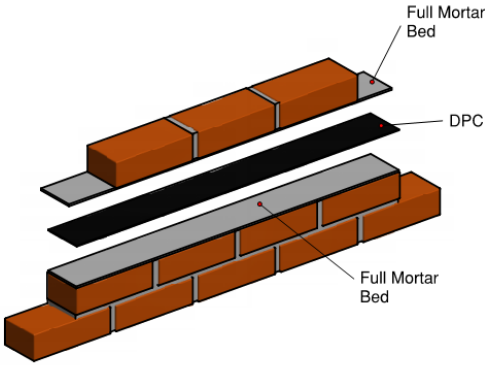


Figure 2 – DPC bedding

- 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;

- 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.

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 or Hyload Lap Adhesive;
- 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;

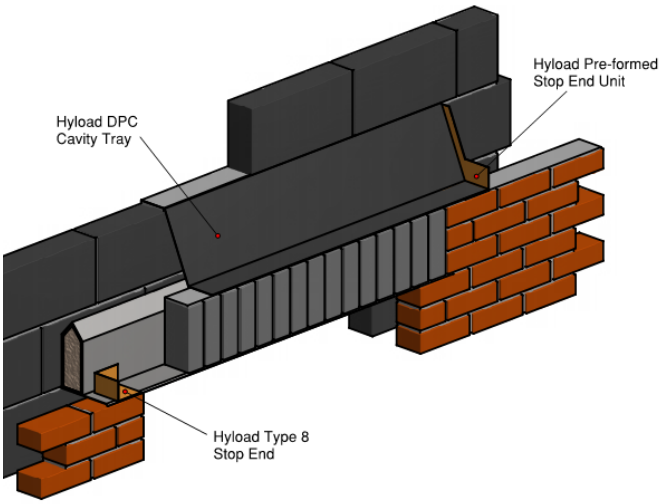


Figure 3 – Typical Hyload Cavity Tray above lintel position

- 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 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.

GAS DETAILING

IKO Hyload Trade DPC can be used as part of a fully sealed low risk gas protection system to close cavities at their base and inhibit the movement of gases from the ground.

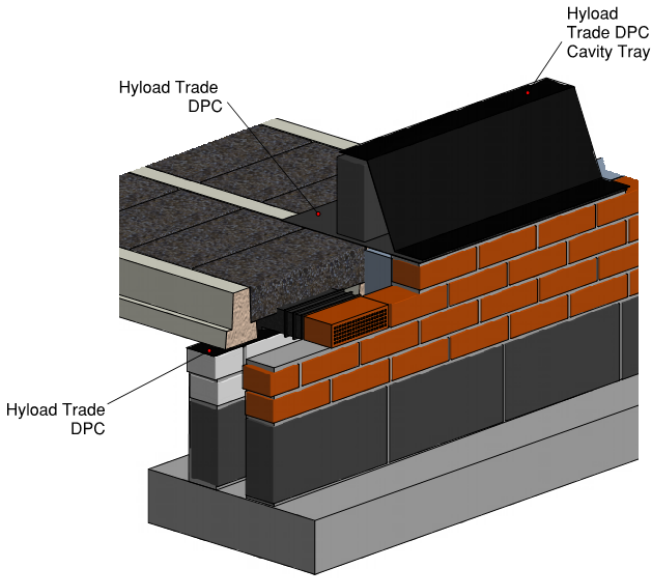


Figure 4 – Typical Arrangement of Hyload Trade DPC at a wall base

Gas detailing must follow the good practices highlighted for within the above sections. General arrangement requires a horizontal portion of DPC across the cavity to create a physical barrier to migrating gas, which should then be linked with the chosen gas barrier within the main floor area.
This DPC **must be fully supported** by either rigid insulation, cavity lean mix or a suitable support board and **fully sealed** using the aforementioned techniques. Detailing at the base of the cavity is then concluded with a cavity tray to ensure water from the cavity above is not able to cross to the inner leaf.

When undertaking gas detailing, it is recommended that reference is made to the guidance offered by the relevant publications for the challenge gases being experienced.

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.
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