IKO GASTITE LL TRADE DPM

PRODUCT INFORMATION

IKO Gastite LL (loose laid) Trade DPM is a flexible virgin grade polyethylene sheet material. When used within a suitably designed ground gas system, it serves to resist gas migration through floor constructions where sites are affected by hazardous ground gases such radon and methane.

In addition to this primary function, the product also acts as a damp proofing membrane at or above ground level, in instances that are not subject to hydrostatic pressure.

Gauge	Product Code
500 Micron (2000g)	30831000

USE

IKO Gastite LL (loose laid) Trade DPM is a gas barrier for use within ground gas protection systems designed in accordance with the guidance of CIRIA C665 and NHBC Traffic Light system.

Typically used within floor constructions, such as ground bearing concrete slabs, beam and block floors, and structural suspended floor slabs

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

INDEPENDENT ACCREDITATION

CE

0836-CPR-13/F064

The product carries a Declaration of Performance Certificate.

FEATURES & BENEFITS

Gas Resistant – produced from virgin grade polyethylene, the product offers a defined material resistance to gas.

Ease of Use – the product does not require special skills to install.

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

PERFORMANCE & COMPOSITION

Composition:	Polyethylene
Form:	Roll
Colour:	Orange
General Dimension Data	
Nominal Thickness:	500 micron
Roll Length:	25m
Roll Width:	1m (2m unfolded)
Performance Data –	
Visible defects (EN 1850-2):	Pass
Water tightness 2kPa (EN 1928):	Pass
Tensile Strength (EN 12311):	CD 21N/mm^2 MD 21.2N/mm^2
Elongation (EN 12311):	CD 695% MD 632%
Joint Strength (EN 12317-2):	281N
Resistance to Impact (EN 12691):	250mm
Durability (EN 1296):	Pass
Artificial ageing (EN 1928):	Pass
Chemical Resistance (EN 1847):	Pass
Resistance to Static Loading (EN 12730):	Soft - Pass Hard - Pass

Continued…

Radon Permeability (RN-222 SP Test) $10^{-12}m^2/s$:	8 ($^{+/-}$15%)
Radon transmittance (RN-222 SP Test) $10^{-9}m^2/s^{-1}$:	8 ($^{+/-}$15%)
Methane Permeability (Rapra) $m^{2*}sec^{-1*}pa^{-1}$:	1.248^{*10-9}
Methane transmittance (Rapra) $m^{*}sec^{-1}$:	$2.452^{*}10^{-9}$
CO_2 Permeability (Rapra) $m^{2*}sec^{-1*}pa^{-1}$:	$2.055^{*}10^{-17}$
CO2 transmittance (Rapra) $m^{*}sec^{-1}$:	$4.357^{*}10^{-9}$

SPECIFICATION

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:

The Building Regulations 2010, Approved Document C - Sections 4 and 5;
BS 8000-4:1989 Code of Practice for waterproofing
BRE Report 212 Construction of new buildings on gas-contaminated land
BRE Report 414 Protective measures for housing on gas-contaminated land

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 for use with IKO Hyload Gastite LL Trade DPM.

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

IKO Hyload Jointing Tape No2 – is a black, double sided butyl mastic tape in 50mm x 10m rolls for bonding damp proof membranes at overlaps and for bonding damp proof membranes to IKO Hyload damp proof courses at junctions with internal and external walls.

IKO Hyload Jointing Tape No3 – is a single sided PVC tape in 75mm x 33m rolls for securing overlap detailing at the free edge and is essential to ensure robustness at joints.

IKO Flashing Tape – a 'hi-tack', single-sided metal surfaced bitumen tape.

IKO Hyload Protection Board – is a 3mm thick, flexible, load bearing and rot proof polymeric board. Used for the protection of membranes against damage from backfill operations, foot traffic or the process of positioning spacers and reinforcement prior to laying a reinforced concrete slab.

IKO Hyload Pre-formed Cloak Units – covering all aspects of detailing from stop ends to complex and awkward interface detailing, IKO Hyload 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:

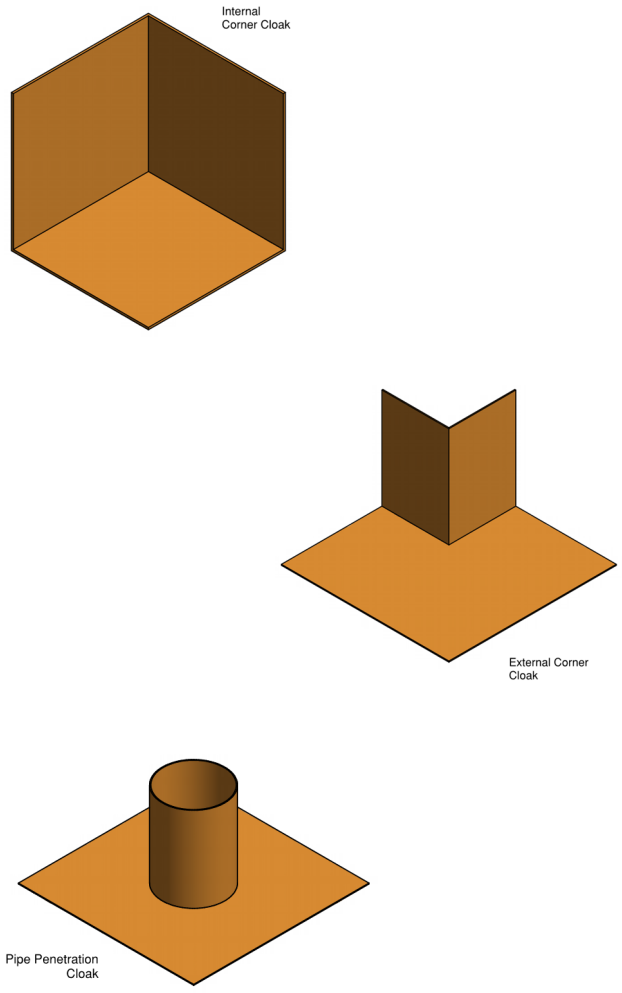

Figure 1 – IKO Hyload Pre-formed Cloak Units

SITE STORAGE

GENERAL

Gas proof membrane materials and any products ancillary to the system should be stored in the dry, under cover, and protected against damage.
Materials should be kept away from direct sources of heat.

24 HOURS PRIOR TO WORK

Store a sufficient quantity of the 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 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 and clean.

CONSTRUCTION

PREPARATION

Substrate

All surfaces should be clean, dry and free from contaminants with any sharp protrusions or low points suitably rectified.

Installation may take place over compacted sand blinded graded stone sub base, sub-structure insulation or concrete substrates.

Floated concrete should sufficiently smooth, with surfaces subject to tamping operation having undulations no greater than 5mm.

Pre-cast beam and block or concrete plank systems must ensure that undulations and voids are addressed to achieve the above surface requirements. Guidance on how to undertake such work should be addressed by the system provider.

APPLICATION

Overlaps

IKO recommends that all laps are a minimum 150mm wide and sealed with IKO Hyload Jointing Tape No.2 and IKO Hyload Jointing Tape No.3.

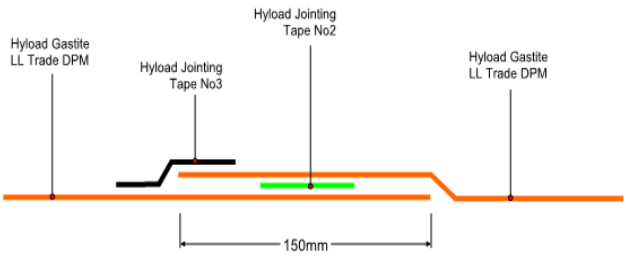

Figure 2 – Formation of Sealed Overlaps

Horizontal application

Working within the footprint of the floor area to be covered, the membrane should be unrolled and cut to the appropriate length. Once cut, proceed to unfold the membrane to its full extent, position and trim to the required footprint.

The damp proof membrane should be continuous with the damp proof courses, with joints formed in the membrane in accordance with Figure 2 and joints formed with DPC in accordance with Figure 3.

Care should be taken at positions of detailing such as corners, door jambs and obstructions. IKO recommends the use of IKO Hyload Pre-formed Cloaks in instances where detailing cannot be effectively site formed.

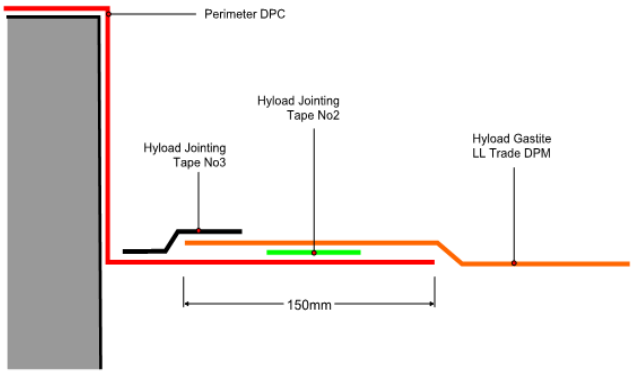

Figure 3 – Formation of Sealed Overlap with Perimeter DPC

The completed installation should be inspected prior to any covering work, ensuring that the membrane is not damaged, stretched or displaced. In the event of damage to the membrane, the area must be sealed using a patch of the same material. The patch must be a minimum of 150mm larger in all directions than the damaged area. The patch should be bonded using IKO Hyload Jointing Tape No2 and sealed with IKO 150mm Flashing Tape all around its perimeter.

The completed installation should be covered with permanent overlying construction i.e. insulation, concrete, as soon as possible after satisfactory inspection.

In instances where the membrane will be subjected to foot traffic or the overlying construction is a structural slab requiring reinforcement, a 3mm Hyload Protection Board should be utilised to mitigate the risk of puncture.

AFTER INSTALLATION

Membranes should not be subjected to long periods of exposure to ultraviolet light. Protection and/or follow fabric should be completed as soon as practicable.

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.