

## IKO HYLOAD TANKING MEMBRANE 3100

### PRODUCT INFORMATION

IKO Hyload Tanking Membrane 3100 is flexible SBS polymer modified torch applied bitumen sheet material that can be used as a fully bonded damp proofing membrane and as Type A Barrier Membrane protection within a structural waterproofing system designed to be compliant with the guidance of BS8102:2009.

Product	Product Code
IKO Hyload Tanking Membrane 3100	62230000



### USE

IKO Hyload Tanking Membrane 3100 can be used as a fully bonded damp proofing membrane, and as a membrane that provides Type A Barrier protection within a structural waterproofing system designed to be compliant with the guidance of BS8102:2009.

### FEATURES & BENEFITS

**Robust & Durable** – the products combination of polymer modified bitumen on a non-woven polyester carrier makes it a tough and durable material choice.

**Heat Bonded** – adhesion to the substrate and heat bonding at the laps provides optimum bond strength and lap performance.

**Flexibility** – SBS modifications give flexible performance at low temperature, making the product ideal for cold weather work.

### PERFORMANCE & COMPOSITION

<b>Composition:</b>	SBS Bitumen
<b>Form:</b>	Roll
<b>Colour:</b>	Black
<b>General Dimension Data</b>	
<b>Nominal Thickness:</b>	3mm
<b>Roll Length:</b>	10m
<b>Roll Width:</b>	1m
<b>Performance Data</b>	
<b>Reaction to Fire (EN 13501-1):</b>	F
<b>Water tightness (EN 1928):</b>	Pass at 60
<b>Maximum tensile force (EN 12311-1):</b>	Long ≥ 500N/50mm Tran ≥ 600N/50mm
<b>Elongation (EN12311-1):</b>	Long ≥ 20% Tran ≥ 20%
<b>Resistance to static loading (EN 12730):</b>	20kg

### INDEPENDENT ACCREDITATION



Agrément Certificate  
98/3479



EN 13969:2004

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

## **SPECIFICATION**

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

### **J40 – Flexible Sheet Waterproofing/Damp Proofing**

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 2000, Approved Document C - Sections 4 and 5;

BS 8102:2009 Code of Practice for the protection of below-ground structures against water from the ground;

BS 8000-4:1989 Code of Practice for waterproofing

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 versatile IKO Hyload Tanking Membrane 3100 system.

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

**IKO Pro Quick Dry Bitumen Primer** – a fast drying, rubber modified bituminous priming solution for the preparation of surfaces receiving IKO Hyload Torch Applied Tanking Membranes.

**Hyload 3mm 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 Plasdrain** – is available in various thicknesses, and acts as a combined protection and drainage sheet for below ground protection and drainage of vertically applied IKO Hyload Tanking Membrane systems.

**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.

**IKO Hyload DPC Fixing Pins For Masonry & Concrete** – used with IKO Hyload DPC Fixing Strip, IKO Hyload DPC Fixing Pins are corrosion resistant and can be used for surface fixing the head of tanking membrane systems to any solid 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. When the drive pin is located, the barbed portion of the fixing pin body expands giving a secure grip and high pull out resistance.

**IKOpro Stickall** – is a dense elastomer modified bituminous sealing mastic that remains plastic under normal temperatures and adheres well to most building surfaces. It can be used to complete termination detailing into chased positions.

## **SITE STORAGE**

### **GENERAL**

Tanking membrane materials and any products ancillary to the system should be stored in the dry, under cover, and protected against damage.

Tanking membrane rolls should be stored on their ends on a flat and stable surface with 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**

Store a sufficient quantity of the tanking membrane and any primers for the next day's use in a warm environment prior to use. This will ensure the desired performance is achieved i.e. good flexibility.

### **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**

### **PRIOR TO COMMENCEMENT**

Installation involves the use of gas torches, and the work must always follow good, safe working practice. Prior to commencing works, it is advisable to consult relevant Health and Safety Executive Guidance

documents irrespective of levels of competence, to ensure all works are being planned and undertaken in a safe, pragmatic manner.

Torch applied materials should only be applied by those competent, conversant and capable of undertaking hot works safely, and that are experienced in the use of gas torches and procedures.

Care must be taken when using torch applied membranes in close proximity to combustible materials, decorative coatings and heat sensitive materials.

## APPLICATION

For situations requiring fully bonded damp proofing IKO Hyload Tanking Membrane 3100 can be used within the floor and as a detailing membrane vertically within cavities to connect various elements of detailing, notably beneficial where that detailing must occur through loaded masonry.

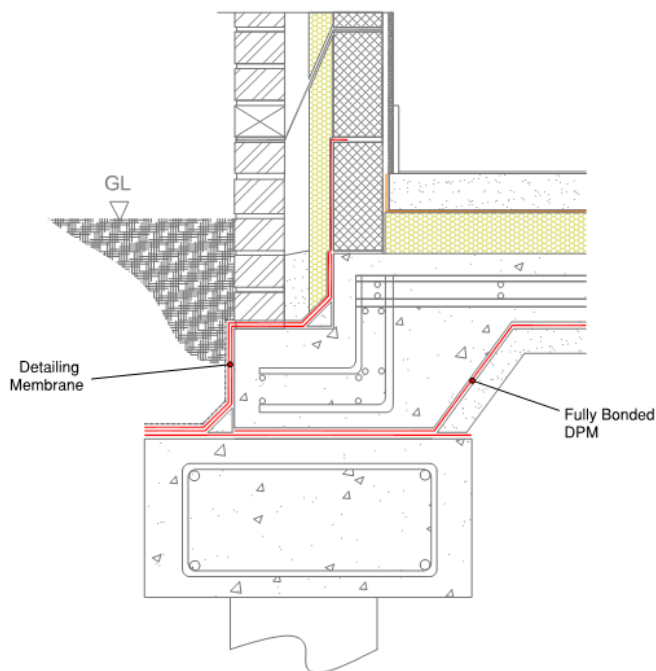


Figure 2 – Typical Damp Proofing Membrane Application

For structural waterproofing situations, the IKO Hyload Tanking Membrane 3100 is categorised as post applied membrane for **Type A Barrier protection** under BS8102:2009, and as part of a designed system can be applied both externally and alternatively as a layer sandwiched within the construction fabric.

Figures 2, 3 and 4 show a typical arrangement of the membrane in each instance. More comprehensive arrangement drawings can be provided by IKO Technical Services on request.

## EQUIPMENT

Regarding heat bonding equipment for horizontal work, an approximate 500mm neck tube and 50mm diameter propane gas burner is commonly used.

For vertical and detailing work, an approximate 200mm neck tube and 35mm diameter propane gas burner is appropriate.

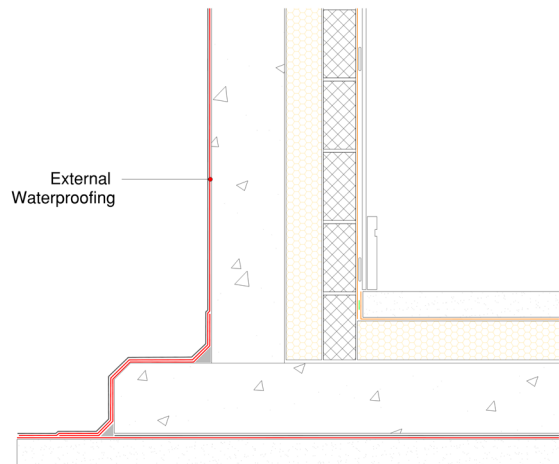


Figure 3 – Typical External Membrane Application

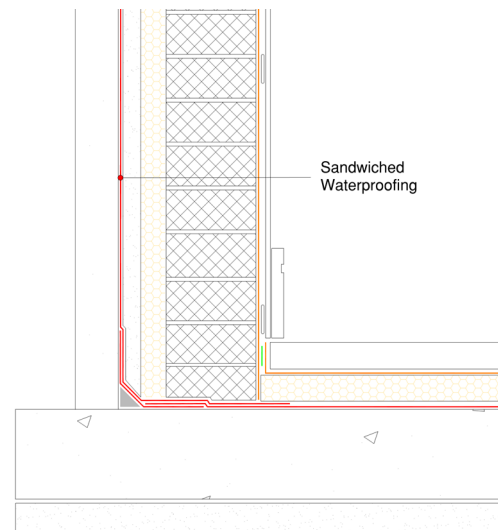


Figure 4 – Typical Sandwiched Membrane Application

## SUBSTRATE PREPARATION

Installation should only be conducted upon concrete substrates that are of a wood floated or similar finish; surfaces subject to tamping operation should not have undulations greater than 5mm.

All surfaces should be clean, dry and free from contaminants and surface latency; additionally any sharp protrusions or low points should be suitably rectified prior to applying the primer.

When application is to be undertaken upon masonry, the surface should be free from projections and flush pointed.

## PRIMING

All substrate areas receiving the membrane must be primed with **IKOpro Quick Dry Bitumen Primer**, applied at temperatures between +3°C and +27°C.

Thoroughly stir before use, ensuring a full working of the liquid in the tin. Do not thin the material for any reason.

The primer should be applied to the prepared surface by brush or roller to give a uniform, even coating at a rate of 3-4m<sup>2</sup> per litre. A brush should be used to ensure the primer is applied fully into corners and areas of detailing.

Porous surfaces may require an additional full coat of the product but be aware that over application of the product may result in longer drying times.

Drying time is approximately 30 minutes at 20°C. At higher temperatures the product may dry faster, with lower temperatures slowing this drying process.

## **FULLY BONDED HORIZONTAL APPLICATION**

Measure and cut to the required size, inclusive of detailing allowances as defined by specific designs.

Once aligned, roll back to a central point using a non-combustible cylindrical former and then roll forward, fully torch bonding to the substrate and torch welding the side laps. Repeat for the second half of the roll.

Subsequent rolls are to be set out with staggered end laps.

The horizontal membrane should be terminated in accordance with the relevant detailing, and as soon as practicable, protected with Hyload Protection Boards, concrete slab work or sand/cement screed.

## **LOOSE LAID HORIZONTAL APPLICATION**

Measure and cut to the required size, inclusive of detailing allowances as defined by specific designs.

Each roll should be rolled back halfway and then rolled forward, torch welding the side lap. Repeat this process for the second half of the roll.

Subsequent rolls are set out with staggered end laps. If necessary, the rolls can be secured into position by creating isolated bonds with the substrate by spot torching each end.

The horizontal membrane should be terminated in accordance with the relevant detailing, and as soon as practicable, protected with Hyload Protection Boards concrete slab work or sand/cement screed.

## **VERTICAL APPLICATION**

Measure and cut to the required size, inclusive of detailing allowances as defined by specific designs.

Starting at the bottom, torch weld the membrane from the horizontal plane, through the corner detailing and working upwards, torch apply the material to the previously primed surface.

Where the vertical sheets terminate, the uppermost end should be mechanically fixed or turned into a chase, wedged and sealed with IKOpro Stickall mastic.

Repeat this procedure for subsequent sheets, allowing for the required torch welded side laps and end laps.

Completed vertical applications must be protected. External applications may achieve this protection by either installing Hyload Protection Boards or IKO Plasdrain drainage membranes prior to backfilling operations.

Sandwiched tanking operations will utilise the requisite masonry fabric and subsequent 40mm sand/cement lean mix as its protection.

## **OVERLAPS**

During heat bonding, ensure that a flow of bitumen is maintained beneath the roll and that a bead of bitumen is extruded from edges and lap joints demonstrating that a seal has been obtained.

End and side laps should be minimum 100mm wide and torch welded in **all instances**, being routinely checked for security as work proceeds.

At perimeters where the membrane is sealed to a wall DPC, reinforcing strip or other specified material, as a minimum 100mm sealed laps should be achieved to ensure full continuity unless otherwise stated by specific designs.

## **ANGLES & CORNERS**

These should be provided with a suitable fillet or splay and reinforced with a 330mm wide piece of Hyload Tanking Membrane 3100 equidistant across the previously primed area.

## **DURABILITY**

The membrane, when fully protected and subjected to normal service conditions, will provide an effective barrier to the transmission of liquid water and water vapour for the life of the structure in which it is incorporated.

## **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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