

## Hyload SA Waterproofing System Guidance Document

### INTRODUCTION

This document is intended to be read alongside the individual IKO Hyload SA Tanking Membrane product datasheets to provide additional guidance in relation to;

- Specification,
- Design Considerations,
- System components,
- Site storage,
- Construction,
- Cleaning

Products within the Hyload range to which this document is applicable include the following;

- IKO Hyload 1000SA
- IKO Hyload 1500SA
- IKO Hyload 2000SA
- IKO Hyload Gastite SA

### 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:

#### **BS 8102:2022**

Code of Practice for the protection of below-ground structures against water ingress.

#### **BS 8000-4:1989**

Workmanship on building sites - Code of Practice for waterproofing.

#### **The Building Regulations 2010, Approved Document C - Sections 4 and 5.**

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.

### DESIGN CONSIDERATIONS

For structural waterproofing applications i.e. below ground applications where there is a potential risk of water under pressure, all IKO Hyload Tanking Membranes are categorised under BS8102:2022 as post-applied membranes offering Type A barrier protection.

Post applied barrier membranes are applied externally below ground as part of a designed system for low or variable water table conditions and can also be combined with pre-applied membranes beneath the structural slab to offer a greater level of protection required for higher water table situations.

Type A barriers can also be specified where required to form part of a combined system to offer dual protection with either;

- another Type A system with different properties (e.g. internal cementitious renders),
- Type B (waterproof concrete),
- or Type C (cavity drain) systems.

Note: Internal sandwich tanking arrangements with Type A barriers (*post-applied membranes adhered to the inside face of a wall and fully supported within masonry wall construction*) are no longer recognised by BS8102 as suitable. Reason: inaccessibility to repair a defect should it occur - The installed waterproofing system must be maintainable.

## **SYSTEM COMPONENTS**

IKO have a range of essential system components, specifically tailored to facilitate the multiple uses of the versatile IKO Hyload SA Tanking Membrane systems.

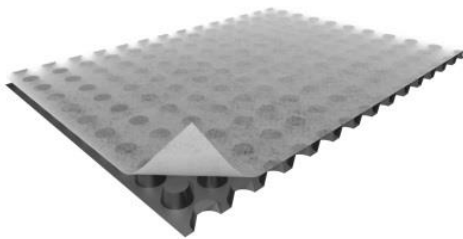
The following represents system components available as part of that range:

### **IKOpro SA Bitumen Primer**



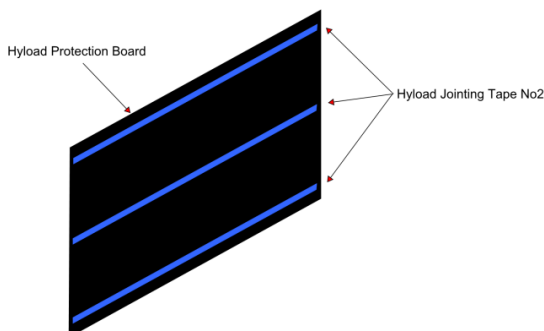
A fast drying, rubber modified bituminous priming solution for the preparation of surfaces receiving IKO Hyload Self-Adhesive Tanking Membranes. Installation of the specified SA tanking membrane should be within a 4-hour timeframe after full cure of the primer to ensure maximum adhesion.

### **IKO Plasdrain Drainage Mats**



Available in thicknesses; 6mm, 12mm and 25mm, it provides protection to the IKO Hyload Tanking Membranes and aids drainage towards maintainable perimeter drainage channels in external below ground applications. Where this means of drainage is not required, IKO Hyload Protection Board should instead be used to provide the necessary protection prior to backfilling operations.

### **IKO Hyload Protection Board**



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 Flashing Tape**



A 'hi-tack', single-sided metal surfaced bitumen tape available in 4 widths for securing overlap detailing at the free edge and is essential to ensure robustness at joints. Commonly used with IKO Plasdrain Drainage Mats to secure overlapping filter fleece flanges.

### **IKO Hyload Jointing Tape No2**



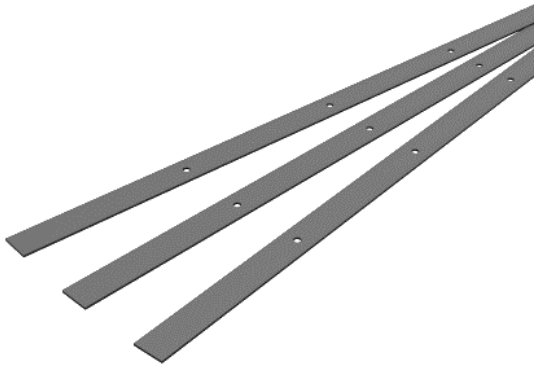
A black, double sided butyl mastic tape supplied in 50mm x 10m rolls that can be used to adhere IKO Hyload Protection Board or IKO Plasdrain Drainage Mats to the back face of IKO Hyload self-adhesive tanking membranes to prevent movement prior to backfilling operations.

### **IKO Hyload Jointing Tape No3**



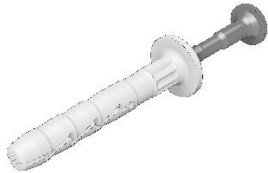
A single sided PVC tape supplied in 75mm x 33m rolls that can be used for over sealing butt joints between IKO Hyload Protection Boards by holding them tightly together to prevent the passage of anything that may otherwise damage the waterproofing system.

## IKO Hyload Fixing Strips



29mm wide x 2mm thick x 2m long corrosion resistant rigid plastic strips that are pre-drilled at set 150mm centres to facilitate mechanical fixings. Used alongside IKO Hyload Fixing Pins for Masonry to provide a secure surface fixing solution along the top leading edge of the specified tanking membrane in vertical applications. The 2m strips are supplied in packs of 40 strips thus covering 80 linear meters and require 277 mechanical fixings for full installation.

## IKO Hyload Fixing Pins for Masonry

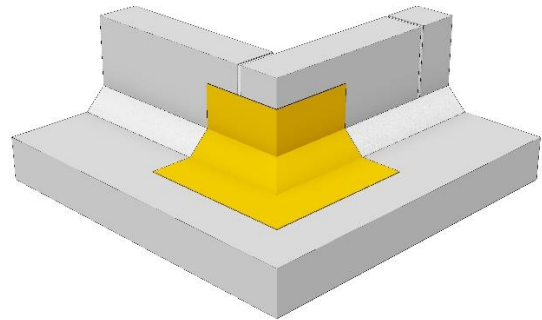
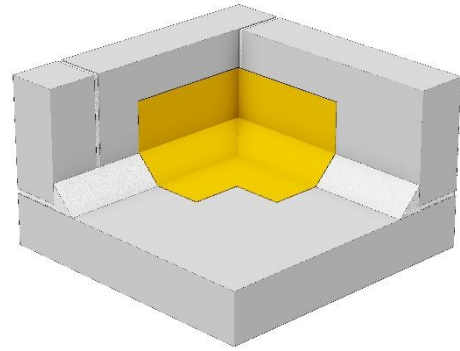


Used with IKO Hyload Fixing Strip, IKO Hyload Fixing Pins for Masonry are corrosion resistant and can be used for surface fixing the head of tanking membrane systems to any solid internal substrate such as brick, stone and concrete. IKO Hyload Fixing Pin bodies are made from moulded nylon and when the central screw is located, the barbed portion of the fixing pin body expands giving a secure grip and high pull-out resistance.

## 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 and there are a number of cloaks unit profiles with standard sizes available to procure through builder merchants; should these be required with bespoke dimensions this too is a service we offer. Contact IKO Technical Services. Those commonly used in waterproofing solutions include internal and external corners:



## 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, 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.

Materials should be kept away from direct sources of heat.

### Check before use

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

### 24 hours prior to use

Store enough rolls of self-adhesive tanking membrane 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, materials and any components should be returned to the conditions of the main storage area as soon as practicable.

## **CONSTRUCTION**

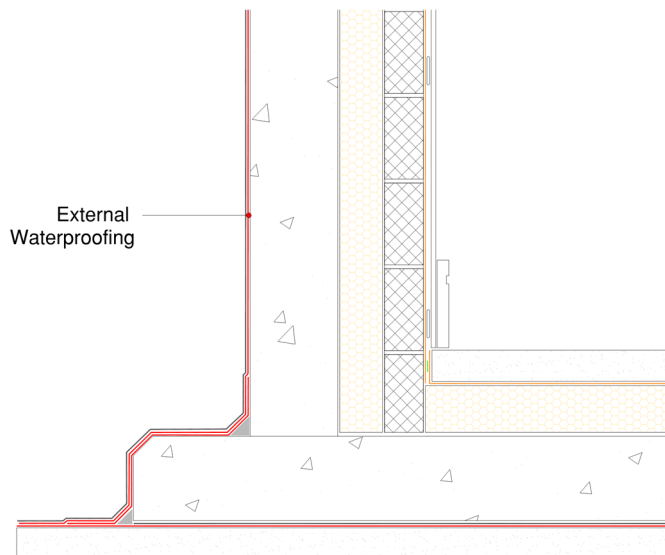


Figure 1 – Typical External Membrane Application

### **Self-Adhesive Membranes**

(Hyload 1000SA/ 1500SA/ 2000SA/ Gastite SA)

#### **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 specified IKO Hyload SA Tanking Membrane must be primed with IKOpro SA Bitumen Primer (applied at temperatures between +10°C and +25°C) Thoroughly stir the primer 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 one uniform, even coating at a rate of 3-4m<sup>2</sup> per litre (on concrete, brick/ block). 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 primer but be aware that over application may result in longer drying times. Drying times for the IKOpro SA Bitumen Primer is approximately 1 hour at 10°C. At higher temperatures the primers may dry faster, with lower temperatures slowing this drying process.

#### **Angles & Corners**

These should be provided with a suitable fillet or splay and reinforced with a 330mm wide piece of the specified IKO Hyload Self-Adhesive Tanking Membrane positioned equidistant from the corner across the previously primed area. Preformed Cloak Units are available for changes of direction, notably those addressing positions of 3 planes of application i.e. corners. Detailing of reinforcement strips and preformed cloaks should be initially undertaken prior to application of the horizontal and vertical field area membranes.

#### **Horizontal Field Area Application**

Measure and cut to the required size with a straight edge knife, inclusive of detailing allowances as defined by the detailed arrangement drawings.

Once aligned, roll back to a central point using a cylindrical former i.e. plastic soil pipe and carefully slit the release film.

As one operative progressively pulls on the release film walking in front of the roll (removing it and moving the roll forwards under equal pressure from the former) another operative follows using a soft brush working from the centre outwards to ensure a full bond is achieved with the primed surface.

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

#### **Vertical Field Area Application**

After cutting to the appropriate length with a straight edge knife, starting at the top of the wall, remove 300mm of release film and bond the membrane firmly to the primed substrate.

Working downwards progressively remove the remaining release film and press the membrane onto the primed substrate working from the centre outwards to remove any air bubbles.

The upper edges of membrane must be fixed using IKO Hyload DPC Fixing Strip and Pins, or turned into a chase, wedged and sealed with IKOpro Stickall.

If membrane installations are not completed in one operation i.e. staggered work stages for large vertical expanses, the top edge of the membrane must be suitably restrained until follow on application continues.

Completed vertical applications must be protected prior to backfilling operations either by installing IKO Hyload Protection Boards or one of the IKO Plasdrain Drainage Mats.

### **Overlaps**

All laps must be a minimum 100mm wide and lap joints should be checked for security as work proceeds. Any/all edge zip strips located down the length of the rolls must be removed and laps should be pressed with a roller to ensure a secure seal.

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

### **Inspection and Protection**

The installed self-adhesive membrane should be checked over for any visible defects, unsealed overlaps, and damage. Where required the surface brushed clean prior to installation of the required protection.

The IKO Hyload SA Membranes must be covered and protected prior to backfilling and concreting operations using either IKO Plasdrain Drainage Mats or IKO Hyload Protection Board as specified. Separate datasheets are available for these products.

## **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.