SECTION 10.4



Technical Data Sheet

May 2018

Structural Waterproofing

IKOpro SYNTHAPRUFE ORIGINAL

PRODUCT INFORMATION

IKOpro Synthaprufe Original is a blend of bitumen emulsion and synthetic rubber latex and can be used to damp proof structure below, at or above ground level.

The product can also be used below ground as part of a tanking system designed to conform to the requirements of BS8102:2009.

Size	Product Code
5 Litre	MW686605
25 Litre	MW686620



<u>USE</u>

For the damp proofing of structures below, at or above ground level. The product can also be used below ground as part of a tanking system designed to conform to the requirements of BS8102:2009.

FEATURES & BENEFITS

Multiple Uses – the product is suitable for use as a damp proof membrane and can be used as part of a designed structural waterproofing system.

Ease of Use – the product is cold applied and does not require specialist skills for application, making it a cost effective, low labour application.

PERFORMANCE & COMPOSITION

Composition: Form:	Bitumen Emulsion Liquid
Colour:	Black
General Dimension Data	
Vessel Size:	5L/25L
Application Temperature:	5° ^C and rising
Drying Time:	6 hours*
Application Rates:	
Floors - 1 st Coat	1m²/L (1L/m²)
- 2 nd Coat	1.5m ² /L (0.67L/m ²)

 -2^{m} Coat
 $1.5m^2/L (0.67L/m^2)$

 Walls
 -3 equal coats
 $2m^2/L (0.5L/m^2)$

*Approximate - at temperatures in excess of $10^{\circ\text{C}},$ with a relative humidity of less than 80%.

INDEPENDENT ACCREDITATION



SPECIFICATION

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

J30 – Liquid Applied Damp Proof Membrane

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;

CP 102:1973 Code of Practice – Protection of buildings against water from the ground

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.

SYSTEM COMPONENTS

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.

MATERIAL HANDLING

For information regarding storage and handling, please refer to relevant sections of the IKO Safety Data Sheet.

CONSTRUCTION

For situations covering damp proofing below, at or above ground level IKOpro Synthaprufe Original can be used as a liquid applied bonded damp proof membrane within the floor and walls.

For structural waterproofing situations, IKOpro Synthaprufe Original is categorised as **Type A Barrier Protection** under BS8102:2009.

The product is for use upon common building materials that are suitably robust for use in areas affected by moisture. These materials are typically concrete and masonry.

PREPARATION

New concrete, sand and cement screed or render should have a wood float finish. Lightly tamped surfaces can also be acceptable provided that undulations are not greater than 5mm. Application to new concrete floor construction should be done after the hydration period specified by the concrete provider has passed and all works to remove surface latency has been undertaken.

Application to new masonry should be done after the mortar has surpassed the required hydration period.

Existing masonry will require preparation that returns the surface to as close to a virgin substrate as possible.

In both situations masonry should be flush pointed to provide an acceptable surface.

All surfaces should be clean and free from contaminants with any sharp protrusions or low points suitably rectified to create a level substrate. Prior to application, surfaces can be slightly dampened with clean water, but the product must not be applied to exposed surfaces in wet conditions (i.e. rain or standing water) or if these conditions are likely to occur before the membrane has dried.

APPLICATION - DAMP PROOFING FLOORS

The 1^{st} coat should be applied at a rate of $1m^2$ per litre $(1L/m^2)$ and be applied by brush, moving in one direction across the application area.

The 2^{nd} coat should be applied at a rate of $1.5m^2$ per litre (0.67L/m²) at right angles to the first, moving in one direction across the application area.

The membrane application must provide continuity with the damp proof course (DPC) within perimeter and internal wall constructions. The DPC material should have sufficient length to facilitate a taped junction with IKOpro Synthaprufe Original as illustrated within Figure 1 below.

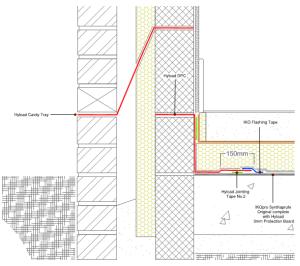


Figure 1 - Perimeter lap arrangement with DPC

Alternatively, when using the product retrospectively i.e. on a pre-existing floor, the product should be detailed up the masonry to a point 50mm above the line of the functioning DPC within the walls.

The edge of the DPC should be exposed to facilitate contact. At the junction where the floor meets the wall, a mortar fillet should be introduced and the membrane taken through the detail. (Figure 2)

Where mortar fillet detailing cannot be provided, sharp angles and corners should be suitably reinforced with 330mm wide strips of Hyload Tanking Membrane 2000SA running equidistant over the transition from horizontal to vertical.

Completed installations <u>must</u> receive permanent protection from damage, trafficking and subsequent building fabric.

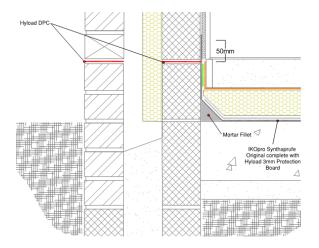


Figure 2 - Junction with a pre-existing floor and wall DPC

In insulated floor construction, this protection can be achieved by using Hyload 3mm Protection Board placed over the final coat of IKOpro Synthaprufe Original once dry, which is then followed by a suitable insulation board and screed arrangement.

In uninsulated floor construction, the protection must be achieved using a minimum 50mm sand and cement bonded screed cast over a sharp sand blinded final coat of IKOpro Synthaprufe Original.

Latex levelling compounds and fast flow screeds <u>must</u> not be used directly over IKOpro Synthaprufe Original.

The product cannot be tiled or covered directly with floor coverings i.e. carpets, vinyl, laminate flooring.

APPLICATION - DAMP PROOFING WALLS

The product should be applied to the internal face of the walls in 3 equal coats, applied at a rate of $2m^2$ per litre per coat (0.5L/m²/per coat).

The 1st coat should be applied by brush, moving in one direction across the application area. The 2^{nd} coat should be applied at right angles to the 1^{st} coat, moving in one direction across the application area. A 3^{rd} and final coat should be applied in the same manner and direction as the 1^{st} .

Care should be taken at positions of detailing such as corners, door jambs and obstructions to ensure continuous protection is achieved.

The completed installation should be inspected prior to any covering work, ensuring that the membrane is not damaged. In the event of damage to the membrane, recoat the area with further liquid at the rates given previously forming 100mm overlaps with existing applications.

Completed installations <u>must</u> receive permanent protection from 2 coats of gypsum based plaster to a thickness no greater than 12mm i.e. bonding coat/skim coat, applied directly to a sharp sand blinded final coat of IKOpro Synthaprufe Original.

APPLICATION - EXTERNAL RETAINING WALLS

When used upon external retaining walls i.e. those which do not form part of a building, the product should be applied in 3 equal coats, applied at a rate of $2m^2$ per litre per coat (0.5L/m²/per coat).

The 1st coat should be applied by brush, moving in one direction across the application area. The 2^{nd} coat should be applied at right angles to the 1^{st} coat, moving in one direction across the application area. A 3^{rd} and final coat should be applied in the same manner and direction as the 1^{st} .

The height of the application should be determined by the level of ground retained, terminating at a level coincidental to that position. The product should not be taken above ground and left exposed.

Care should be taken at positions of detailing such as water outlets through wall, weep positions to ensure continuous protection is achieved.

The completed installation should be inspected prior to any covering work, ensuring that the membrane is not damaged. In the event of damage to the membrane, the area must be re-coated with further liquid at the rates given previously forming 100mm overlaps with existing applications.

Completed installations <u>must</u> receive permanent protection from damage by follow on work i.e. backfill operations, landscaping works. This protection can be created using IKO Plasdrain membranes where drainage provision is required at part of the overall sub surface drainage system or Hyload 3mm Protection Board.

APPLICATION - TANKING

The product is categorised as a Type A (Barrier) Protection within BS 8102:2009 Code of Practice for the protection of below-ground structures against water from the ground.

The product can be used externally or sandwiched within the building fabric as part of a structural waterproofing system, designed in compliance with the aforementioned standard.

Further advice and assistance from IKO Technical Services should be sought when specifying and detailing in these areas.

DURABILITY

When subject to the normal conditions of use and installed in line with the published guidance for that area of work, the product will provide an effective barrier to the transmission of liquid water and water vapour for the life of the structure into 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.

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.